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*Turn to our step by step guide on page 10*

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**17 3.5" DRIVE**



**10 FAX MACHINE**



**82 COMPETITION**

## FEATURES

### 10 FAX OF THE MATTER

Amstrad's fax machine was a welcome product release for PCW owners. But not so joyous have your experiences been in persuading the fax to co-operate with your PCW. So, we bring you a practical guide to using the fax machine – answering all of your most asked questions!

### 17 DRIVE ON!

This month, we show you how to fit a 3.5" internal drive to the PCW8512. Don't miss our fully illustrated guide!

### 34 SUPERCALC SPECIAL!

Don't miss our step by step guide to setting up and using Supercalc – one of the most popular spreadsheets around. Page 34 has the full story!

### 42 MINI OFFICE

Now where did last month's Mini Office special get to? The answer is, this month's issue! Tony Hart provides you with all you need to know about using the spreadsheet module to monitor your sports scores

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Need the lowdown on LocoScript? Turn to our three page section of practical hints, tips and advice!

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Win a PCW performance booster – worth over £80!



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This month's cover feature is, once again, in response to hundreds of letters reaching the 8000 Plus office since the release of the Amstrad fax machine last year. Many of you are simply dying to get to grips with the machine, but are constantly frustrated by the lack of information available to the PCW user. We have tried to alleviate that problem in our feature beginning on page 10, by showing you exactly what needs to be done to make the machine work for you. Not everything has been covered, of course; but we do hope that we've provided sufficient information for you to have a decent headstart to success

with your machine! A second response to various *cris de coeur* from readers is our *Supercalc Surgery* on page 34. What we have done is to show you how to set up and carry out a simple operation with this popular spreadsheet, giving you the chance to by-pass the manual and get straight down to business!

For those among you who are keen on writing as a hobby or as a profession, we've invited a small-press magazine editor to provide you with all the information you'll need to organise your work. We've also looked at how LocoScript and LocoFile can assist you to this end. Don't miss it!

In the final part of our series on 3.5" drive installation, we are looking at how to fit a drive to the PCW8512. So, if you fancy trading in your existing B drive for a slightly larger one, turn to page 17 for some very concise instructions!

This month's competition backs up July's feature on the PCW performance booster, Pro8256. We've got one of the add-ons to give away this month, and it is a prize well worth having. If you turn to the back page, you'll find a full run-down of the benefits which it can offer owners of the PCW8256. So, without further delay, we'll begin!



Sophie Lankenau - Editor

## ON ITS WAY: THE NEW PCW!

**The new machine is still under wraps but the future looks revolutionary for the PCW**

Rumours about the new PCW are still rife within the industry. Our sources reveal that a new PCW is *definitely* on its way. And those same people are standing by for some very radical changes to our favourite machine.

A big relief to LocoScript lovers is that LocoScript seems set to stay, as does CP/M. But one possible change is that the new machine may have LocoScript built-in to the internal memory (known as ROM).

"I think that Amstrad will start a big advertising campaign in Autumn," said Peter Langford, from Silicon City, "and we expect the new machine to have boot-up LocoScript software in ROM."

Other industry figures, such as Andy Wilton from Software Imperative, were sceptical about the idea of a ROM-based LocoScript. "It's not that Locomotive don't know how to write ROM software," Andy

Wilton said, "but they would have to alter the program quite substantially. Also ROM chips and ROM sockets cost money, and Alan Sugar hates spending money without good cause."

One point that is widely agreed on is that the new PCW will have an internal 3.5" drive. "We now find it impossible to get hold of the 3" drive," said Peter Langford. "As far as we know, Amstrad sold off their remaining stock before Christmas."

The outward appearance of the new machine is thought to be based on the 9512, with an improved screen - but there is little news on what type of printer is planned.

As usual, Amstrad were tight-lipped about the new machine. "I'm not aware that we've got one," said Nick Hower, a spokesperson for Amstrad. "I'm aware of the rumours, but that is all they are -



**Alan Sugar, founder-member of Amstrad and 'father' of the PCW, could be planning some radical changes to the PCW machine**

rumours." As to the possibility of a new PCW launch he said there were, "no plans to launch a new machine before September." If this is the case, it does not completely rule out the Business Computing '91 show in late September. We wait with bated breath!

## ART for art's sake



**This romantic 'winning and dining' scene was chosen from a collection of clip-art pictures on the new Goldmark disc**

Another addition to a healthy collection of clip art for the PCW has just emerged in the form of a new catalogue from Goldmark Systems.

Their combination of catalogue and clip-art disc is Book 3 in the series and is replete with ready-made images.

An image can be chosen from the catalogue before loading it into the PCW. This is a definite bonus since it saves you from the loading dozens of clip-art files, before you find the one that you want.

Goldmark say that the book covers subjects as diverse as, "waiters, waitresses and wedding scenes." It contains hundreds of pictures and many of them are full screen size.

To get hold of a copy of the catalogue, send a cheque or postal order for £4.00 to Goldmark Systems, 51 Comet Road, Hatfield, Hertfordshire, AL10 0SY.

The catalogues can also be ordered directly over the telephone on (0707) 271529

## The missing link

If you come across a package strangely entitled *Wysiwyg*, don't be alarmed. The name stands for *What You See Is What You Get* and is a new PC to PCW file transfer program.

Despite the odd title, the program - from Logistics - makes it simpler to link up a PCW to a PC. It includes all that you need, in terms of both hardware and software. This means a cable and interface from SCA systems, three discs of 3", 3 1/2" and 5 1/4" format and a neat ring-bound manual.

"No other PCW to PC transfer package is so easy to use," said Peter Mydlarz, from SCA Systems. "The program has pop-up menus making it easy to understand and it has already been a tremendous success in France."

The complete Wysiwyg package costs £81.90 (including VAT) or £40 if you already have the required interface. Further details are available from Logistics on (0480) 861224.

# NEWS

by Karen  
Donaghay



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## Lock, stock and barrel!

Even the best programs can be improved, as Cornix have recently proved. Their Invoicing program was always a good buy: it produced invoices, customer statements, and even lists of debtors. Now an extension to the program means that it can also deal with stock control.

With the new update to the program, the stock levels are changed whenever a sale is made. Warnings are given when the stock levels get dangerously low. Also a report on the stock levels can be produced at any time.

Using sales to keep track of stock is nothing new. Supermarkets have been using similar tactics since the invention of the computerised till. But, it is new to the PCW owner, and it could be one way to simplify the whole process of ordering new stock.

These new features are available as an extension to the Cornix Invoicing program. The Stock Control part costs 49.00 + VAT whereas the original Cornix Invoicing program costs £69.00 + VAT. Cornix can be contacted by writing to Tavistock House, 34/36 Bronham Road, Bedford, MK40 2QD. Their telephone number is (0234) 219969.

## Standard fare

The 3" disc has never been popular: it is both expensive and hard to get hold of. Given the chance, most people would happily dispense with the 3" disc altogether and now this is exactly what 9512 owners can do.

A new 3.5" drive from Silicon City can replace the A drive so even LocoScript and CP/M can be put on to a 3.5" disc. It is fitted as a replacement to the 9512 A drive and you can copy all of your software on to the new format when you install the new drive. But this begs the question: once in place how do you obtain new programs in 3.5" format?

Peter Langford from Silicon City did not predict any problems. "Most software companies are now geared up to provide software in 3.5" format," he said.

We tried asking a few software houses whether this was the case. "Certainly" said Richard Bland from Creative Technology. "We can produce 3.5" discs at a week's notice. Or we could provide individual copies in-house at any time." As he pointed out, producing discs in 3.5" format for the 9512 is no more difficult than doing the same in 3" format.

Silicon City also plan to provide an identical drive for the 8000 series. "The A drive for the 8000 series is more difficult," said Peter Langford. "We pride ourselves on making all of our discs easy enough for Joe Public to fit. At the moment the 8000 version needs a bit more work."

Autumn was predicted as a likely time for its release. However the 3.5" A drive for the 9512 is available now and costs £95 including VAT. More details are available from Silicon City on (09662) 88707.

## New speedy nine pin

A new nine pin printer from Seikosha aims for speedy results. Called the SP241, it offers wide carriage printing combined with a range of five fonts.

"The printer will be targeted at business and professional users handling heavy work loads," say Seikosha. They claim that the printer is both durable and fast enough to cater for this group.

Accountants, payroll departments and local government officers are all seen as likely customers.

Vital performance statistics are 50 characters per second in NLQ and in draft mode it clocks up an average of 220 c.p.s. As a typical workhorse printer it offers a sheetfeeder and continuous paper feed, while the printer functions are operated via a push button panel.

Despite the recent excitement over inkjet printers, Seikosha claim that the dot matrix is still a winner, commanding the lion's share of the market. "There is a very large demand for this type of machine," said the sales manager, Gareth Cornish.

The price of the SP241 has been set at £320 plus VAT and Seikosha can provide more details on (0753) 685873.



Could this printer be fast enough and wide enough for the average pay-roll department? Seikosha say "yes"! The SP241 is reputed to be the smallest of its kind

## Sprinter and MasterScan unite!

Sprinter and MasterScan can now work together, thanks to a recent upgrade of Grafink2. The original Grafink2 software was aimed at MasterScan users, giving them faster, more effective scanning. When Sprinter was found to be incompatible with MasterScan, it was seen as a challenge by the Philosoft team.

"I had call from a client who had Sprinter and MasterScan and found that they could not work together. It all started from there," explained Tom Richens from Philosoft. "To date, Grafink2 is the only way of using Sprinter and MasterScan together," he added.

The original version of Grafink2 allows high-resolution scanning of A4 pages, so that you can scan text as well as images. It also cuts the scanning time by up to 50% and offers several other facilities.

The new version still offers all of these options plus the new Sprinter compatibility. "I have also taken the opportunity to improve the menu and to make installation easier," said Tom Richens.

Grafink2 costs £24.90 (including VAT) but those who already own a copy can get their disc updated free of charge. The address to write to is Philosoft, 9 Short Street, Colne, Lancashire, BB8 8EP or call them on (0282) 870197.

## Goodnews for the PCW

Columns are a useful variation on the standard LocoScript printout. To make this possible, a new package called the Goodnews Suite can convert text into columns at the impressive rate of three pages a minute.

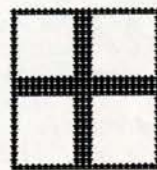
Other programs on the disc let you produce large letter heads with logos and print them out as part of a LocoScript document. When all three elements are combined they can make for an interesting

newsletter. But the really good news is that £5.00 from each sale goes towards the Red Cross charity. The total suite costs £10.00 but to avoid tax complications, payment should be made out as two different cheques: one made out to Goodnews Software and one to The British Red Cross Society.

For more information call Goodnews Software on (0326) 72407 or write to them at 3 Poltair Drive, Penryn, TR10 8NY.



# GOODNEWS



THE Newsletter Suite for the PCW9512

In aid of The British Red Cross Society

The Goodnews Suite can give you everything you need to write a newsletter in LocoScript: large headings, logos and columnised text

## Stitch in time

It's official! Knitting is no longer to be regarded as something which only our Grannies do! The PCW is getting in on the act with a program to help you design your own range of knitwear. The title of 'Knitting Punched Card Designer' does little to evoke images of log fires and homely settings - and you can throw away those old wooden size 1 needles, because you'll need a knitting machine to help you. More details can be obtained from the program's inventors, HTB Computers, on (0794) 516279.

## DTP Winners!

Did you enter June's fabulous DTP competition? If you did, you'll be waiting eagerly to find out if you are one of the lucky winners! OK, here goes; the two runners up, each of whom receive an AMX mouse plus interface, are M Barnes of Poole in Dorset, D C Halliday of Cambridge. First prize - which is an AMX mouse, an interface and The Desktop Publisher software, goes to Ian Mackenzie, of Glasgow. Well done one and all! The answers were as follows:

- a) Mickey
- b) John Steinbeck
- c) The Mouse Trap
- d) Mousehole



## On the ball!

Our favourite tycoon, Alan Sugar, has recently been out on a shopping spree. Not for the week's groceries mind you! He has just spent twelve million pounds to rescue that well-known Gazza territory: Tottenham Hotspur Football Club. Twelve million? Mere pocket money to Alan, we assure you!

## A friend in need

The computer printer was recently slammed as, "man's worst enemy," by Paul Abrahams in the Financial Times. Well, we can sympathise with that, but he went on to say that the PCW was incapable of driving a laser printer. Really? Dare we say it - but maybe you've been reading the wrong magazines, Paul!

## Back to school

The educational program, Fun School 3, went down a storm with parents all over the country. The package from Database Software proved beyond doubt that the PCW could keep kids happy and teach them something as well. Now Fun School 4 is on its way. It is due for release at the end of the year and, according to Database Software, it's better than ever. Get the full story in News Plus next month!

## Better letters!

Fonts galore are offered on a new disc from The MicroDesign2 International User Group. They describe them as the "best set of fonts yet to be seen" and they are, needless to say, intended for use with the MicroDesign2 program.

All proceeds will go to the M.E. Association and any payment of £5.00 or over will be accepted on behalf of the charity. It is hoped that sales will raise more than £1000, so £5.00 is viewed as a minimum donation for the disc.

To obtain a copy, send a cheque or postal order (made payable to The M.E. Association) plus a blank, formatted disc and a first class stamp to: The MicroDesign2 International User Group, 15 Elsham Close, Bramley, Rotherham, South Yorkshire, S66 0XZ.

## Songs of praise

Who are the Best Christian Software writers of 1991? A company called Evangeltrust aim to find out, and have put out a challenge to software writers everywhere in the world.

They have launched the first software competition of its kind and entries can be any type of Christian software. This might be a bible study aid, a database or a game. Or it could be a program to help church ministers or other church members. Mr Dean from Evangeltrust described the competition as: "an excellent project for a church youth group, Sunday School or house group."

Anyone lacking inspiration need look no further than Evangeltrust's own range of wares. They specialise in Christian software for a range of computers, and the winners will have the opportunity to see their own software published.

"All it needs," said Dr Dean, "is one or two people with simple programming skills, plus the enthusiasm and organising abilities to see it through."

Prizes include cash and software and the rules are that the program must be an original piece of Christian software written in 1991. For an entry form and more details write to Bible Software Competition, Kingston upon Thames, Surrey, KT1 2NX enclosing an S.A.E.

## Small is beautiful

A new printer is being heralded as "the world's smallest" by its creators, Citizen Europe. And they could well be right. The printer, known as the PN48, fits into a standard-sized briefcase with ease.

Compared to other A4 printers, Citizen say that the new model is smaller and lighter than any of its competitors.

The PN48 produces true letter quality print, it offers two fonts (Courier and Times Roman) and has a battery life of up to thirty pages before it needs to be recharged.

The printer retails at £325 (plus VAT). More details can be obtained through the Citizen Customer Response Desk on (0895) 72621.

# CLUB NEWS

There are clubs and then, there are clubs. The clubs that we usually carry news of in this column are those which meet regularly, and which tend to form social as well as computing links.

But there is another breed of club. One of these is the PCW-World Club. Connected to the company of the same name, the club began two years ago to provide support for the products which the company sells. Since then, that role has consolidated, and the club now fulfils other functions.

The main organ of the club is the newsletter, which is quarterly, and whose twenty or so pages cover many aspects of computing with the PCW. It concentrates mainly on programming and CP/M matters, as well as introducing new discs and hardware from the company itself.

In addition to this there is also a 'general help-line' for members, which is open during office hours, although if your enquiry/question is more specific, you may find that a written reply would be more helpful. Again, this is available to members.

On top of this, there are discounts on software (both commercial and Public Domain), as well as access to one of the largest PCW shareware collections in the country, and there are disc transfer, disc rescue, laser printing and ribbon re-inking services, all at reasonable rates.

Membership is £9.95, and more details are available from PCW-World, Cotswold House, Cradley Heath, Warley, West Midlands B64 7NF.

## User friendly

Another club organised along the same lines is the "PCW User Club". Based in Devon, but aiming for a countrywide membership, the club intends to meet every three months or so for a 'conference' on subjects such as 'Software Applications' and 'Communications'. The locations for such meetings are intended to be many and varied.

In addition they will provide members with help sheets on various applications, as well as sending out monthly copies of the newsletter "Computer Talk".

Then they can offer other benefits - notably up to 30% off hardware products and 50% off software products.

But these benefits come at a price. The half yearly membership fee is £17, and the full annual fee is £32. Further details from the PCW User Club, Michael Wiginton, 3 Redwell Road, PAIGNTON, Devon TQ3 3PY.

## More USA

Hot on the heels of last month's news from the other side of the Atlantic, we have heard this month from Bill Roch of Elliam Associates. He brings two more USA clubs to our attention: The AWPUG (Amstrad Word Processing User Group) 6930 Commerce Blvd., #67, Rohnert Park, CA, and FAUG (Florida Amstrad Users Group), at 600 St. Andrews Blvd., #3705, Winter Park, FL. It's good to know the PCW is flourishing in Florida!

## Home News

Back in this country, there have been developments in the South of Essex. The South Essex PCW Club is the name adopted by the Basildon Club we mentioned a few months back. Although at that time they were a little reticent about their status, they can now say with confidence that they are 'up and running', and are holding regular meetings on the first Thursday of every month.

Their catchment area covers Basildon, Southend, Chelmsford, Havering and East London, and the man to contact is Jim French, 145 Noak Hill Road, Billericay, Essex CM12 9UJ.

Meanwhile over the blue, blue River Thames, Thanet could soon boast a new Users Club. If you live in that area, why not get in touch with Leo Kirk, 41 Norfolk Rd, Cliftonville, Kent. CT9 2HU, so that he can 'gauge the interest'. He's very keen, so go on, do it!

## New Digits

Finally, it's some time since we've mentioned the Hastings Club. But don't let that fool you into thinking that they've disappeared. Still very much alive and kicking, they meet one Wednesday evening every month in St Leonards.

But besides their meetings, the club also offers the 'back up' support of a magazine (called "The Digit"), a help hotline and a ribbon re-inking service. Add to that a growing Public Domain library, and you'll see that PCW owners in the Hastings area have a great boon.

Contact Joe Unwin on 0424 718589 (note the new number).

## Club call

Remember - keep us posted on what your club is doing. This is the time of year at which we're particularly happy to hear about your Autumn schedules, so send those print outs to:

Club News, 8000 Plus, 30 Monmouth Street, Bath. BA1 2BW, to reach us by the end of the first week of August.



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## Fax v Modem

Fax technology is actually a step backwards for computer users. Anyone with access to a computer and a telephone line would be far better making use of a modem. You can send words or pictures over the telephone line just as you can with a fax. But the advantage is that when it reaches the other end it is in a form that can be readily used by the other computer – as either a text file that can be edited in a word processor or as a graphics file in a graphics or DTP package. But the fax holds one trump card over its high-tech cousin. It is incredibly simple. With the fax you simply feed in the piece of paper, key in the telephone number and press a button. You can do this without any knowledge of baud rates, parity or stop bits. You can easily communicate information to any corner of the globe. In comparison you almost seem to need a degree in computer science to tackle some of the mysteries of modems. Until the modem becomes as simple to use as a fax it can never hope to compete. Virtually every business in Britain has a fax in the office: perhaps 1% will use a modem on a regular basis. So even if you have and use a modem, you have a limited audience.

# Facing the Fax

*The Amstrad fax machine can work hand in hand with your PCW – once you've mastered the basics. Alec Rae helps you to get started*

If there is one piece of office equipment that has gained in popularity anywhere near the rise of the personal computer it has to be the fax machine. Amstrad, who have done more than their share to popularise personal computers and to bring them down to a price that is sensible, now seem to be doing the same for the fax machine – a tool that, in a few years, has become invaluable to any modern business.

And again they have priced their machines at a level to make it possible for even the smallest company to afford them. But they haven't left it at that.

Linked to a computer (such as a PCW for instance) in one machine you also have a fax, a telephone answering machine, a photocopier, an automatic phone dialler, a scanner and a computer printer. In fact, virtually everything you need to run a business.

## Simple but sophisticated

The simplicity of the fax doesn't mean that it can't be used as a sophisticated business tool. And the technologically aware PCW owner (of course you're technologically aware – you own a computer, don't you?) doesn't have to be driven to distraction to operate it.

For a start, in the world of the paperless office it is ridiculous to be feeding bits of paper into a fax machine to be screened.

Probably 90% of the material you want to send by fax can, and will, be produced on your PCW. If you then have to wait until you have printed out before you can feed it into the scanner you have wasted paper, effort and time.

But don't panic. In line with the fax's basic simplicity the use of a computer with the Amstrad fax is also sublimely simple. In essence you treat the fax as if it was an external printer. As far as your software is concerned it is feeding data to a printer. The fact that it actually prints out perhaps thousands of miles away is totally incidental.

So, in theory, any software that allows you to use an external printer should allow you to send a fax. So, for instance, LocoScript 1 won't handle it but LocoScript 2 or Protex can do it without problems. If you don't have such a word processor turn to the BASIC information box.

## Sending a fax from the PCW

Using the computer to send a fax is easy. You simply pretend that you are printing the document out on an external printer.



This means that with LocoScript 2, for instance, you should call up the Settings options and choose the parallel port setting. The parallel port is just another name for the Centronics port. If you are going to be using the fax regularly save that setting to the SETTINGS.STD file.

In Protex you use Setprint – a useful utility that helps you write your own printer driver. With Protex loaded type SETPRINT and choose option one – Set printer options. The top item in the menu is the type of printer. Press the sideways cursor keys until it reads parallel, press [EXIT] to get to the main menu and save the printer driver (press [9]) under a suitable name – FAX.PTR seems to spring to mind for some reason. Leave Setprint (press [0]) and then load the

printer driver in Protex by typing in PRINTER FAX in command mode. Then set up the fax. This involves setting the Text button as ON (the red light is on). If you have to switch it on you will see the word REMOTE flash up briefly in the LCD display.

Type your fax in on the word processor. Don't bother too much about bolds and italics. The fax will ignore them anyway. Save the document as an ASCII file and then go through the normal process for printing it.

The Text button light will flicker. Then either tap in the fax number at the fax key pad or use a One Touch Key or Shortcode number to dial up the other fax (see box overleaf for more details) and your fax is on its way.



## STEP 1: HARD FACTS ON SOFTKEYS

The key (or more accurately the keys) to the inner mysteries of the fax are the interestingly named Softkeys, so called because they let you meddle with the fax software - not because they will break if you press them too hard. These are found next to the LCD display.

If you press the outside two keys you instantly enter the magic world of fax programming. A message on the LCD screen will tell you where you are. Against each of the three keys you will find an option.

This allows you to access the SETUP menus - to set defaults and to perform various tasks. The bottom line of the LCD display will not read 'Last This Next'. You can move back and forward through all the options by pressing either the 'Last' or 'Next'

button. When you come to a setting you want to change press the 'This' key and you will be presented with more options. Press the appropriate key until the action you require is complete.

For instance there are three printer types that the fax emulates. The one you want to choose is the Epson FX option. As the PCW printer emulates an Epson, you should be able to use PCW software without needing a new printer driver.

Once you have pressed the two outer keys press 'Next' until the LCD display reads SETUP: Printer Type. Press 'This' and see what printer type it is set up for. If it is either of the two IBM printer types press Last until it reads EPSON.

Press 'This' and it will ask you whether you want Linefeed ON or OFF. If it isn't set up to OFF, do so by

pressing the 'OFF' then 'OK' button to take you back to the SETUP menu.

Using this method you can set up the time, date, character set (whether you want to use the UK or the USA set) and the density of the printing (choosing a level from one to seven). You can also get activity reports (how many faxes sent and received) and you can enter the data for the One Touch Keys and the Shortcode numbers for simple dialling (although a clever computer user would be much better advised to read the 'One Touch Explained' overleaf first).

One important setting is the Fax Header - a piece of text that will appear at the top of all of your faxes telling the recipient where it has come from and what your fax number is - saving the recipient a good deal of searching!

## STEP 2: BASIC INFORMATION

If you don't have access to any of the high-powered word processors that support external printers you can still make use of your PCW with the fax - using good old BASIC.

As you are still using the same method - pretending to print your text to an external printer - you first have to tell the PCW to send all the data to the fax instead of to the PCW printer.

This needs DEVICE.COM, a program which is to be found on the CP/M utility disc. It controls what the manual helpfully describes as 'physical devices'. This means things like printers, connections with modems, the keyboard and the monitor.

Load the disc with the program in drive A and type in A:DEVICE LST:=CEN. You will get a list of all the current settings, hopefully ending with LST:=CEN. If there is any problem the PCW will literally point out where you have made the mistake. A little arrow points at the spot in the text where it thinks you have gone wrong.

If it isn't a simple typing error you may find that the PCW doesn't recognise the fact that there is an RS232 plugged in its back. Switch off the PCW and refit the RS232 (don't do it with it switched on - it is about the easiest possible way of breaking a PCW!).

When you restart the PCW, check the first words on the screen. They will say whether or not it realises that there is an RS232 (serial, parallel interface)

```
B>device lst:=cen
Physical Devices:
I=Input,O=Output,S=Serial,X=Xon-Xoff
CRT NONE IO LPT NONE O SIO 9600 IOS CEN NONE O

Current Assignments:
CONIN: = CRT
CONOUT: = CRT
AUXIN: = SIO
AUXOUT: = SIO
LST: = CEN

B>pip
CP/M 3 PIP VERSION 3.0
*lst:=fax.1
```

Using the fax purely in CP/M. This will send an ASCII file out to the fax

fitted. Once this has been successfully completed, load up BASIC by inserting the disc with BASIC in the drive you are logged on to, and typing in BASIC. The best way to check that everything is working is first of all to use the fax as an external printer. First, set up the fax to print. This simply involves switching the TEXT button OFF (it will briefly say LOCAL on the LCD display).

The command to print something in BASIC is LPRINT. So, if you type in LPRINT "Hello world", a piece of paper adorned neatly with Hello World will issue out of the machine.

Switch the TEXT button to on to send a fax. To prepare the fax you set it up as a simple BASIC program. To print in BASIC you use the command LPRINT. So, for example,  
10 LPRINT "from: Attila T. Hun  
20 LPRINT "To: The swarming

Tartar hoards

30 LPRINT "Message: Fancy invading Europe next Wednesday?

40 LPRINT "Love and Kisses

50 LPRINT "Attila

60 END

If you want to add control codes (see Memories Are Made of This" and "Signing On"), you add to the codes a line saying:

15 LPRINT CHR\$(27)+CHR\$(126)

That's the line you would put to include a signature or logo using the Signature feature. Or if you don't even want to use BASIC you could save your word processor file in ASCII and print it using PIP.COM. Set up the Centronics port as before using DEVICE.COM and then load a disc with PIP.COM and type PIP. At the \* type LST:=FAX.1 (or whatever the file is called) and carry out the process on the fax as normal.

## STEP 3: SIGNING ON

One simple drawback that the computer link with a fax causes is that you do lose the personal touch of the hand scribbled note that the fax can offer you. It seems so cold blooded sending a Valentine fax with "From Guess Who XXX" typed neatly at the bottom.

Amstrad have got round this with the signature feature. You can scan in your

signature and then add to the bottom of your fax. Or, perhaps, you may want to use a small piece of graphics at the top of your fax, such as a company logo or a picture of yourself smiling benignly. Any small piece of graphics can be used.

The only thing you have to watch is not to leave any space between any parts of the logo or signature. If for instance

you write "love and kisses...the Chairman" over a couple of lines and scan it into the fax it is inclined to only pick up the first line.

Print or write out your graphics on a piece of white paper making sure that you leave a two inch (five cm) gap on either side and at the top. Load this up as if you were going to scan it for a fax. ➤

## Drive on

In theory, any program that supports an external printer could be used to send a fax. In reality it is more complicated. Before any printer will work with a computer it needs a printer driver - a file on the computer that gives the printer all the correct codes to print in bold or to underline. To simplify things, manufacturers with a new product will often emulate another, better known printer. The PCW printer, for example, emulates an Epson printer. At first sight the Amstrad fax machine also appears to emulate an Epson printer. However in reality it only emulates text printing like an Epson. It won't print graphics (well at least it will but it prints them so badly you couldn't really use them). It also ignores codes for bold, underline, italics and so on so what you get is just the plain, unadulterated text. That, of course, is not too limiting. If you want to send a fax with graphics or fancy text, just print out the document and send it in the normal way by loading it into the fax machine to be scanned.



## How much?

The Amstrad FX9600AT fax costs (RRP) £699 plus VAT - however, some high street electrical retailers are selling them at half that price, so do shop around. To set yourself up to use the computer with the fax will add a little to your costs. You will need an RS232 (the box that sticks on the expansion slot on the back of your PCW) and a printer cable - an investment of about £60. Be careful in choosing the printer cable. You need one with a male Centronics connector at each end. This is different from the IBM compatible PC printer cable which is the most common in computer shops. Of course, an RS232 is also vital if you intend to use an external printer, a modem or even if you want to transfer files from one computer to another, so it is a good investment. Linking up the computer with the fax machine is pretty simple. The cable attaches to the lower fitting on the RS232 and fits into the back of the fax machine.

Then we use the faithful old softkeys. Press the two outer keys and press the 'Last' key until you see SETUP: Signature in the LCD display box.

Press 'This' and then 'Change'. Your choice is then 'Capture' or 'Erase'. When you press 'Capture' the fax will begin to scan your piece of paper. If you want to check that everything is OK press the 'Print' key in the first menu option and see what it looks like. If you

are not happy, press 'Change', 'Erase' and then start again.

To use this in a fax is slightly more tricky. You need to introduce a couple of control codes into the text at the point where you want the signature or logo to go. If you have a word processor that allows you to do this use that (for instance Protext using SETPRINT).

If not, you can use the BASIC method (see BASIC Information box on

the previous page). The two codes you need are CHR\$(27) and CHR\$(126). Be careful, however, that you leave enough space. If you are not careful you can easily find it overprinting some text.

If you use this regularly it is best used with a template.

But there is one small problem. The logo or signature seems to be erased every time you switch off the fax and has to be reloaded.

## STEP 4: ONE TOUCH EXPLAINED

One of the advantages of the Amstrad fax machine is its ability to hold telephone numbers in its memory. By pressing one or two buttons you can automatically call any of 50 telephone numbers. But the really clever part is that if you have got a fax ready to go, the machine senses this and automatically dials the fax number instead.

This is obviously a time saving feature. But to set up these numbers in the first place is actually quite time-consuming in itself. There is no QWERTY keyboard. Instead you press one of 20 One Touch keys.

The first button, for instance, is A. Press Shift (another of the buttons) and you get B and so on through the alphabet. This is not the most natural way of entering large amounts of text.

Instead, the PCW owner can produce a list of up to 50 names with both telephone and fax numbers in a and then load them automatically into the fax memory in seconds.

This does need a little technical skill. For instance, you need to be able to introduce control codes into your text.

Here, the control codes required are ESC and BEL (the latter being the code that makes your PCW bleep). They tell the fax that the next piece of text is not a fax but that it should be stored in the telephone number memory.

Again, use a word processor (such as Protext, for instance) that allows you to introduce control codes into the text or you can use BASIC (see the 'BASIC

Information' box)

The manual goes to a lot of trouble to tell you that you need codes at the beginning and the end of the text although in practice you seem to be able to get away with the codes 27 and 7 at the beginning of the text.

The text has to be in the proper format for it to work properly. You need to have the name, telephone number and fax number for each entry on a single line with a [RETURN] at the end.

You can enter up to 50 names and

would be the sort of layout you would use the following:

```
10 LPRINT CHR$(27)+CHR$(7)
20 LPRINT "Attila the Hun"TAB(21)"0225 442244"TAB(41)"0225 446019
30 LPRINT "Spears'R'US"TAB(21)"0224 123456"TAB(41)"0225 654321"
40 LPRINT "Pillagers Supplies"TAB(21)"0278 444863"TAB(41)"0278 444863"
50 END
```

```
Ok
list
10 LPRINT CHR$(27)+CHR$(7)
20 LPRINT "Attila the Hun"TAB(21)"0225 442244"TAB(41)"0225 446019
30 LPRINT "Spears'R'US"TAB(21)"0224 123456"TAB(41)"0225 654321"
40 LPRINT "Pillagers Supplies"TAB(21)"0278 444863"TAB(41)"0278 444863"
50 END
Ok
```

A simple BASIC program to enter names and numbers in the One Touchkeys

numbers in this way. The first 20 should fill up the One Touch entries and the next 30 will go into the Shortcode spaces. They should just go in the order you entered them.

Each field (part of the entry) has to be no more than 20 characters long and each must start exactly 20 characters apart. So you will put the name starting at the beginning of the line, the telephone number starting at character space 21 and the fax number at character space 41.

In BASIC you can do this with the (TAB) command. For instance this

Set the machine up as if you were going to send a fax (TEXT button ON) and then print the document or run the BASIC program.

The TEXT light will flash. Press the TEXT button and go into the softkeys set up and print out a telephone list to see if it has worked.

In our trials the only problem we encountered was that it always seemed to ignore the first entry in the One Touch keys and start at the C/D button.

However, programming this one entry using the Softkeys method is not really too much of a hardship.

## STEP 5: THE FAX MACHINE AND SCANNING



There are two types of Amstrad faxes - a fact catered for in ProScan's options menu

So far we have talked purely about how to use the PCW to help with faxing. There is also one area where the fax

machine can help with your computing. When the fax machine sends a fax or photocopies a document it is, in fact, acting just like a scanner. So, it is only sensible that Amstrad should also allow the machine to act as a scanner for graphics or DTP programs.

So far we only know of one program capable of handling scanned images from the Amstrad fax and that, almost predictably, is the software for the ProScan hand scanner.

Creative Technology, who make the ProScan (and MicroDesign 2, of course), sell a cable costing £10, that will allow you to capture images from the fax. They will also sell the ProScan software without the scanner. There are advantages in using this method of

scanning over a hand scanner. It is quick and it is easier to line up the image (very important in scanning).

But there are limitations with the Amstrad fax as a scanner. It only scans at 300 dots per inch and practice has shown there are wide variations in the machine's performance in this field. It appears that within the same product range there are two distinct types which perform differently when scanning. There are two settings in the ProScan options menu to cover this. If one doesn't work properly try the other. If you consider this scanning feature to be important to you, it is worth while trying to run the scanning procedure before you buy the machine as some models seem to work considerably better than others.



# With LocoFile, your PCW can have a powerful 'card index' database.

The chances are, you currently think that your PCW can't do much more than word processing.

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And, working with the menus you're already used to with LocoScript 2, you can instantly call up a card on screen even if you're in the middle of editing a document.

Then simply transfer the information into your document without even having to re-type.

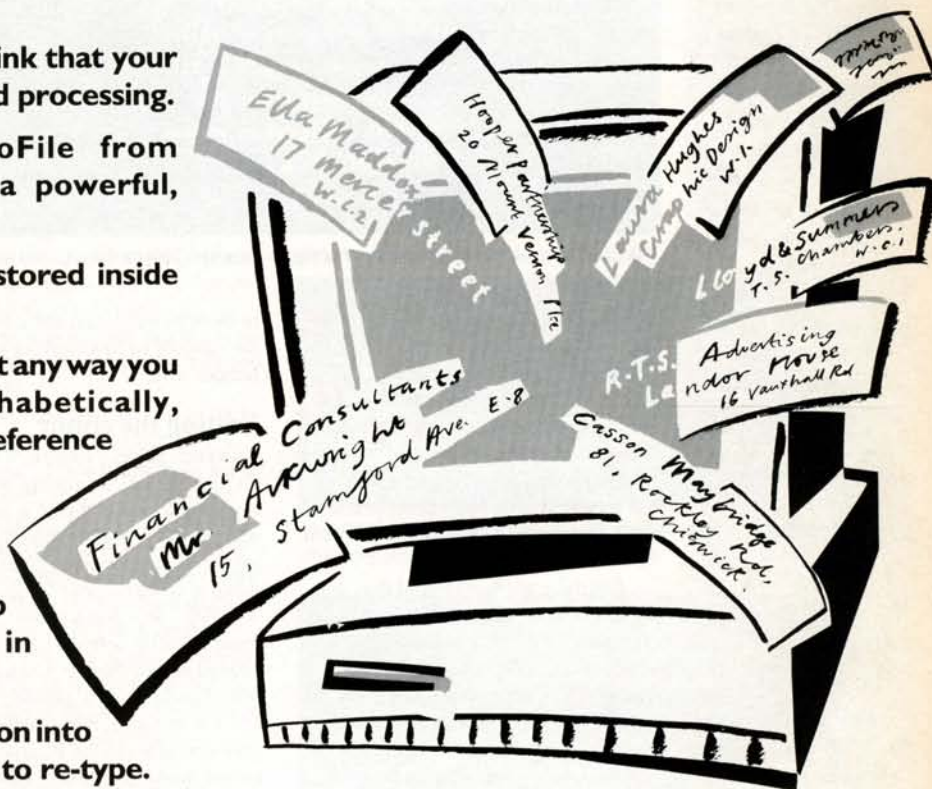
If you have a PCW 9512 or an 8256/8512 with LocoScript 2, you can simply add LocoFile.

But if you've a PCW 8256/8512 with the original LocoScript, you'll need LocoScript 2 and LocoFile together.

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# All Systems Go!

*In the last tutorial of the series, Martin Le Poidevin shows you how to customise Protext – and make it a truly personal word processor*

## Self service

The ultimate customisation would be to make your disc self-booting. Load up Protext, and, using Protext itself, copy the files something.EMS and SUBMIT.COM from your CP/M start-up disc. At the Protext command line type PROG [RETURN], which will make Protext save the following file in pure ASCII, hit [STOP] to enter editing mode, and type simply: "PROTEXT". Save this to disc as PROFILE.SUB. You should now be able to put this into your drive whenever you turn your machine on, and go straight into PROTEXT.

## Problems with Protext?

Although this is the last of our tutorial series on Protext, we are still happy to deal with your queries on the program. Next month, we'll be running a special Protext surgery, where we will aim to solve any Protext problems which you may have encountered. If there are more than enough for one issue, we'll extend the surgery for another month. So, send your letters in to Protext Surgery, 8000 Plus, 30 Monmouth Street, Bath BA1 2BW.

```

PROTEXT CONFIG v1.08 (c) Arnor 1986      MAIN MENU      Current Drive : A
1 - Set editing options
2 - Set spelling checker options
3 - Set printing options
4 - Set general PROTEXT options
5 - Set keys for PCW8256/8512
6 - Set keys for CPC6128
7 - Set printer driver options
8 - Set name for AUTOEXEC file
9 - Save configuration file
0 - Quit configuration program
Select option : █

```

The CONFIG main menu. To select any of the options, simply type the required number

Over the last few months we have looked at many ways of making small changes to the way that Protext operates. It may well have struck you that one of the major problems with such changes is that they are lost whenever you leave Protext – and then next time you come back to the word processor you have to re-program them once again.

But there are ways round this, and using them you can actually 'customise' Protext to your own requirements.

You may have noticed that every time you boot up Protext a message appears telling you that the program is 'Looking for configuration'. This 'configuration' is a file on the start up disc which contains exactly the customising information that we are looking for.

The file itself, if you were to load it into the computer, would read like nonsense. However, we have a user-friendly interface into it, using a program called 'CONFIG.COM'. This is to be found on side one of the Protext master disc, and can be loaded directly from Protext – although you must make sure that you have saved the files you are currently working on before you install it, because it replaces Protext in the machine's consciousness.

Having loaded the program (by typing CONFIG [RETURN]) you will see an opening menu. The options on this menu open out into various aspects of Protext's working life, some of which will not actually affect the PCW (for instance, 'Setkeys for the CPC6128' is of no interest to PCW owners, although 9512 owners will be happy to know that 'Setkeys for PCW8256/8512' does refer

to them as well), and some of which are too obscure or involved for us to want to tamper with.

## Editing the editor

However, to get a flavour of what we can do press 1, for "set editing options". The screen will be filled with a new set of options, now relating directly to some aspect of the way that Protext behaves when you are editing.

You can see at a glance how each of these is set by default; you can also change any of them if you feel that it would make your life easier.

For instance, if you habitually put your text discs in the B: drive, it might save a little bother every morning if you make that the 'default' text drive – which means that whenever you boot up, Protext will automatically log into B:, providing, of course, that there is a disc in that drive.

To change the setting, simply move the cursor to "Default drive for text" and type in the required setting – in this case B. Almost all the options on this menu are answerable with a single letter made obvious in the prompt. Notice that the cursor only moves up and down columns: when it reaches the bottom of the first column it 'wraps round' to the start of the second, and when it reaches the bottom of the second column it 'wraps round' to the top of the first.

This is only one of the useful options on this menu, and while some just cement the changes that you might make every time you use Protext, others will give you access to parts of the software that you probably never thought of changing. For instance, if you usually edit text with the tabs and carriage

returns displayed (by pressing [ALT] T), you can make that a start up option by using this CONFIG menu. Equally, if you like to have the spaces displayed, you can set them using CONFIG, too. There is also the choice of having your text automatically right justified – or not.

These are rather mundane changes to the program's basic configuration. But there are also some more esoteric options. If you have ever been annoyed, for whatever reason, with the speed of the cursor flash on the editing screen you can change that option (the higher the number, the slower the flash rate).

If you sometimes find your cursor wandering off the right hand edge of the page, accompanied by an unnecessarily large sideways jump in the screen display, then you may want to change the 'Sideways scroll increment'. And if you prefer the more LocoScript-like arrangement of the screen, whereby the printer control codes are hidden, then it is worth setting 'Control codes displayed' to N.

## Prompt service

Two other options on this menu could prove of benefit to the user. One is to set the 'Background printing' either on or off, depending on which you use most, and then to set 'Prompt for background printing' to N. This means that the printer will no longer wait to ask 'Background printing' before it prints your documents: it now knows the answer to the question.

Finally, you could choose to reset the 'Undelete buffer size'. This will be of great interest if you regularly cut out fairly large chunks of text, and then realise that you didn't mean to.

You can sometimes rescue that text by hitting [ALT] U, but if the deleted block is too large, that is impossible. What setting the 'Undelete buffer size' will do is increase the size of the block that can be rescued in this way.

At present this buffer is set to 512 characters. Because this comes out of the M: drive you will have to be careful about how big you make the buffer, but 8512 and 9512 owners should be able to go up to something like 5000 characters. Of course, this would leave absolutely no memory space!

When you have set everything on this menu, quit it by hitting [STOP]. Unless told otherwise, you can always leave a CONFIG menu using the [STOP] key. You should at this point be back at the main CONFIG menu, and so can



explore another of the main options. For instance, option 3 lets you into the printing menu, using which you can set the standard layout of your page. Page lengths, top, bottom and side margins, header and footer lines, even automatic page numbering – all these can be set from this menu.

It is at this point, as well, that you can plump for either continuous or single sheet printing.

Bear in mind, though, that unless you have a specific template that you know you will always use, it is better to control these parameters from within the document itself.

## Fourth course

Return to the main menu using [STOP]. Number 4 on the menu is 'General PROTEXT options', which again opens a menu of somewhat surprising options – certainly not the sort of parameters that LocoScript allows the user to even think about changing.

The first of these is the 'expansion token buffer size' – or the 'phrase store'. When we looked at phrases a couple of months ago, we discovered that the space available for storing characters was limited – and that if we tried to overfill this space, the 'Phrases too long' message would appear.

The way round this is to alter the 'expansion token buffer size'. As with the 'undelete buffer' this actually lives on the M: drive, and increasing the buffer size will diminish the amount of space available on M:.

Again, users of 512k machines will hardly notice the difference, but 8256 owners may find 'memory full' messages appearing more frequently.

Protex certainly tries to be amenable. In some situations – for instance on particularly bright days, or when there is a lot of backlight – it can be difficult to see the white or green characters on the black screen. Inverting the screen can be achieved using the PCW colour setting – N for normal, I for inverted. Not the quickest way of doing it, admittedly, but you could always keep two discs, one normal, one inverted; or even change the settings at the start and end of the summer!

## Wait a minute...

Some typists who have converted from electronic typewriters may feel that one troublesome feature of the PCW is the 'key startup delay'. When you hit a key, the character represented by that key is printed to screen; if you keep the key depressed for a short time, that character is then reproduced rapidly across the screen.

That 'short time' is the 'key startup delay'. This can be changed, making it either shorter or longer, depending on your requirements. At the same time, you can also alter the speed at which the character is repeated after that delay – the slower it is, of course, the less time you will waste deleting whenever you do accidentally hold a key down.

The final PCW option on this menu

allows you to disable the [RELAY] key, should you so wish. Users of the new Teqniche keyboard will be familiar with this facility. The other three options apply only to CPC users.

## Keyboard rethink

It has been said that the QWERTY keyboard was actually designed to slow typists down. If you feel it is a handicap in the way it is presently configured, do not fear – it can be easily altered, for use with Protex at least. Option 5 from the main CONFIG menu – 'Setkeys for PCW8256/8512' (and the 9512, of course) – is the means of achieving this.

For instance, you may want to experiment with the so called Dvorak keyboard. This will mean changing a large number of keys, but no matter. The principal involved is simple.

Load up the setkeys option. The first piece of information that the computer will need is the number of the key to be changed, in this key the key presently marked 'Q'. A chart of the relevant numbers is on page 109 of the 8256/8512 owners manual (the CP/M section), and 544 of the 9512 manual; from that we see that the key is numbered 67.

Enter 67 into the computer, and a mass of further information will appear in the middle of the screen. The numbers down the left hand side of this are the key numbers; you will see that the cursor is lined up opposite the number that you have typed in.

The rest of the display is split into two, under the headings 'ASCII' and 'Hexadecimal'. Underneath these are a series of letters, which stand for the various keystates: Normal, Extra, Shift, Alt and ShiftAlt; underneath these are the entries for those particular key states. On the ASCII side of the chart all the ASCII characters are listed; on the hexadecimal side, the characters which are not ASCII characters are added in. The difference is that here, the characters are referred to using numerical information.

For the Dvorak keyboard, the characters that replace the Q are ';' in the normal state and ':' when shifted. Both these are ASCII characters, so we can enter them directly from the keyboard into the ASCII table.

Make sure the cursor is over the lower case 'q', and hit :. This will replace the q on screen – and you will also see the corresponding number in the Hexadecimal section change.

Now shift the cursor along to the 'S' column, so that it is over the 'Q' character. Change this, in the same way, to :. To end, hit the [STOP] key. This will return you to the key number prompt at the top of the screen. Repeat this process – finding the key number and inserting the new characters – until all the keys which need attention have been dealt with.

At some point, though, you are likely to want to include a character which is not part of the ASCII set, but which is part of the allowed set. Lists of the most common ones are given in

Appendices 4-1 and 5-1 of the Protex manual. If all you are doing is shifting a character from one key to another, you can obviously find its code by looking up its old key number.

Identify and enter the new key number, but now, instead of trying to alter the ASCII information, we will have to shift over to the Hexadecimal box. Pressing [TAB] will take you from one side to the other; when you have your cursor in the correct position, enter the new number.

Again when you have entered all the new information, hit [STOP], and when you have finished your key setting, hit [STOP] again. This will once again return you to the main menu.

By now you will have extracted just about everything you need from CONFIG. All that remains is to save the file to disc, which is done for you if you press 9 at this menu. All you have to do is choose the drive to save the file to – which in every case should be drive A:.

Now you have a copy of Protex which is set up to your individual requirements. You will quickly become used to your customised version, and armed with this convenient set-up you should be ready for a life time's word processing using Protex.

## Spell it out

Menu 2 of CONFIG allows you to set the Spellcheck options. All that you can actually do is set the drives and user groups for the text and dictionary that you are using; what is more, it will only take effect when the dictionary is loaded from outside Protex

Set editing options			
Default drive for text	: B	Tabs/returns displayed	: Y
Default group for text	: 0	Spaces displayed	: N
Insert/Overwrite mode	: I	Control codes displayed	: Y
Right justify on	: Y	Document/Program mode	: D
Word-wrap on	: Y	Doc/prog mode for imported files	: D
Box mode on	: N	Undelete buffer size	: 512
Help lines on	: N	Cursor flash rate	: 500
Background printing on	: Y	Temporary text drive	: M
Prompt for background printing	: Y	Sideways scroll increment	: 1
Decimal tabs commas/full stops	:		

The editing menu, from which you can change many of the characteristics of Protex's editing functions

Set printing options			
Page length	: 66	Continuous printing on	: Y
Line spacing	: 1	New page after print	: Y
Top margin	: 3	Page number at top	: N
Header margin	: 2	Page number at bottom	: N
Footer margin	: 2	Form feeds enabled	: N
Bottom margin	: 3		
Side margin	: 5		

The printing menu allows you to set a default 'template' for your printed page, saving you the trouble of setting the same one up each time

Set keys for PCW8256/8512															
Key number : 67															
KN	ASCII					Hexadecimal					N	E	S	A	SA
	N	E	S	A	SA	N	E	S	A	SA					
63	x	.	X	.	.	78	97	58	18	18					
64	1	i	!	1/2	1/2	31	AF	21	B6	B6					
65	2	.	"	1/4	1/4	32	C3	22	A8	A8					
66	.	.	.	.	.	FC	9F	FC	FC	FC					
67	.	.	.	.	.	3B	90	3A	11	11					
68	.	.	.	.	.	09	9F	E4	E1	E1					
69	a	.	A	.	.	61	80	41	01	01					
70	.	.	.	.	.	9F	9F	9F	9F	9F					
71	z	.	Z	.	.	7A	99	5A	1A	1A					

With the setkeys menu you will be able to change the characters stored under any of the keys on the keyboard



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# Driving On!

*In the third of our series on drive installation for the PCW, we show you how to fit a 3.5" internal drive to the 8512*

Once you've had a computer for some time, you will begin to feel that you know it. It will have become something of a friend (which isn't to say that, like some human friends, it isn't sometimes your bitterest enemy as well).

If you've got a PCW8512 you'll automatically know by now which discs can go in either drive, and which will go in both. You'll appreciate the rather odd symmetry of having one drive on top of the other one. You'll be able to feel the weight of the 3" disc in your hand.

So why should you change all that? After all, if you have a single drive machine, it makes sense to add a second drive – any 8512 owner will tell you that – but if you've already got that second drive, why alter the status quo and install a 3.5" drive instead of your 3" B: drive?

There are several reasons. One is that 3.5" discs are cheaper and more plentiful than 3" discs. The same goes



This is what your PCW8512 will look like once the new internal drive is fitted. But how do you carry out the procedure? Read on...

for the drives themselves – 3" double density drives are becoming increasingly scarce. It may well be that if your present drive breaks down you will have no option but to replace it with a 3.5" one.

The most convincing argument for

many people, though, will be that the 3.5" drive will allow you to communicate directly with a PC, whether it be your own one at home, or one that you use in the office. It won't mean that you can run the same programs on both (although some programs, such as LocoScript, have both PCW and PC versions), but you will be able to transfer ASCII files between the two with ease.

And you don't have to worry about damaging your old friend. Fitting the drive is a fairly simple procedure. There is nothing technical about it: no soldering, no circuit boards, no wires to cut in the right order. Just a few screws and connectors to undo and refit on to the new drive – and a little bit of old-fashioned filing! So why delay any longer? Fitting an internal drive is not so much a matter of losing a friend as gaining a more versatile (but just as amicable) workmate! Now, who could complain about that?

## HOW TO USE YOUR NEW DRIVE

So having got your new drive installed, how can you start to use it to the maximum advantage?

Part of its role, of course, is as a CP/M (or LocoScript) data disc drive. Unfortunately you can't actually boot the machine from the B: drive – the internal wiring prevents that – but you can run CP/M programs from it. And, given the right software, you can use it to simulate an MS/DOS (or PC) drive, so you can copy ASCII files to an MS/DOS format disc in that drive.

But first things first. The following is a sensible way to check that the new drive is functioning properly. Boot up CP/M from the top drive (simply insert your CP/M disc at the point at which you would normally put your LocoScript Start of Day disc in). It should acknowledge the presence of two drives. Now type DISKIT [RETURN], and follow the instructions on screen for formatting a disc in drive B. If the drive is working, the option should be made available.

Carrying out that operation should prove that the drive is working perfectly well. Now it is time to use it for storing information. With CP/M still in the A: drive type PIP [RETURN].

When you are presented with an asterisk, type (exactly): B:=A:DIR.COM. This will copy the 'DIR' directory program on to the B: drive. At the renewed

asterisk prompt, hit [RETURN] to quit PIP, and type (in full) DIR[FULL], then hit the [RETURN] key. The computer should respond with a list of the files on the disc (in fact there should be only one), together with how big each is, and how much room is left on the disc.

This is what is most interesting to us – the amount of room left. Together with the DIR size, this should equal 720k, the size of a normal B: drive disc. Whether you have installed the drive in an 8256, and 8512 or a 9512, the disc will hold 720k of information. Incidentally, if you have followed these steps and reached this point, you have proved that your new drive can both read and write to disc, and that you can load a program from it.

If you are an habitual user of LocoScript 2, you can of course carry out all the above procedures using that instead of CP/M, using a document instead of a program.

### Crossover point

If you want to use your new drive to transfer information to a PC, there are several routes you could take.

There is the physical one, down a cable (such as Locomotive Software's LocoLink), or there is the one where the majority of the work takes place on the PCW (Moonstone's 2 in 1 falls into this category, and is available at a reduced

rate when you buy your drive).

Finally there are the programs which centre on the PC. The program which comes with the drive, 22DISK, is one of these later programs. It comes as part of a shareware disc, and so you will be required to register it with the author if you continue to use it after a trial period.

To access the program you will need to 'unZIP' the files first, on to a spare, formatted MS/DOS 3.5" drive. The document files on the disc will help you to carry this out.

Once the files are 'unZIPped' you can start to use them. Before anything else you will have to tell the computer that you are using an Amstrad PCW8256 disc (the code is AMS1).

Now choose the CP/M to MS/DOS option, specifying the group that the computer will find the CP/M file in, and the file path for the MS/DOS file. Both will also need to have their drive letter specified – if you are using a single drive PC, the trick is to copy from A: to A:.

If the files you are sending across are text or data files, you should of course save them first as ASCII files (unless your system requires otherwise).

Any other form of transfer must be considered risky, although there is a second set of programs on the shareware disc which may help in program transfer.

## Fact File

- The 3.5" drive for the 8512 costs £91.90 plus VAT. We obtained ours from Silicon City, who can be found at Dept 8, Postal Buildings, Ash Street, Windermere, Cumbria. LA23 3EB (09962) 88707

- As stated in the article, the transfer software which comes with the drive is known as Shareware, and – for the moment at least – if you keep using the software you are required to register with the author.

- Moonstone's more user friendly 2 in 1 costs £29.95 (including VAT), and is available from them at Unit 14, Strathclyde Business Centre, Clyde Street, Clydebank, G81 1PF (041) 9413120.

But if you buy 2 in 1 from Silicon City along with your new drive, you can snap it up for a mere £25.95.

- Other transfer packages currently available include Timatic System's T-Read and NewStar's C-Stam. It seems likely, though, that more and more such systems will become available in the coming months. Watch this space!

- Many thanks again to Silicon City for their help with this month's walkthrough. All the equipment and methods have been tried and tested. But if you are at all unsure about tackling such DIY operations on your PCW, contact your local dealer or repairer and leave it up to them!



## Hints & Tips

### ● Step 1:

You will need: a file, the template and mask, a file, and three screws (all these provided with the drive). In addition you will need a long-shafted crosshead screwdriver, a flatbladed screwdriver, a duster and a cloth to lay the computer on. Not forgetting, of course, the drive itself!

### ● Step 2a:

Our computer had a German interface at the back. This means that it may not look quite like your PCW on the inside - but don't worry, none of the steps are affected by this.

### ● Step 2b:

Don't forget to put the screws away in a safe place - you will need them later!

### ● Step 3:

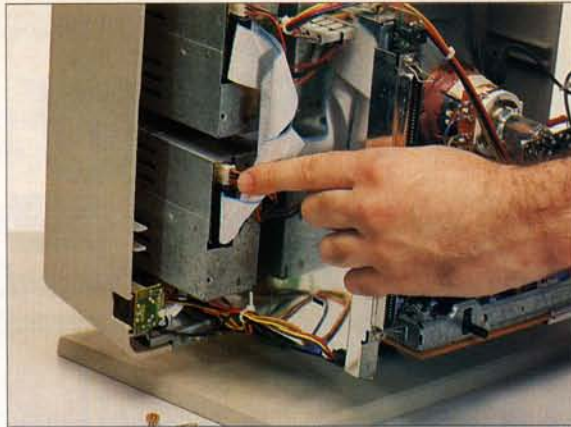
If the interface will not come away easily, use a screwdriver with a thin blade to help it on its way. The opening to aim for with your screwdriver is the one nearest the drive, not the one from which the cable itself emerges. Needless to say, this has to be done with great care. If any of the pins get bent, it will be difficult to straighten them later on.

### ● Step 6:

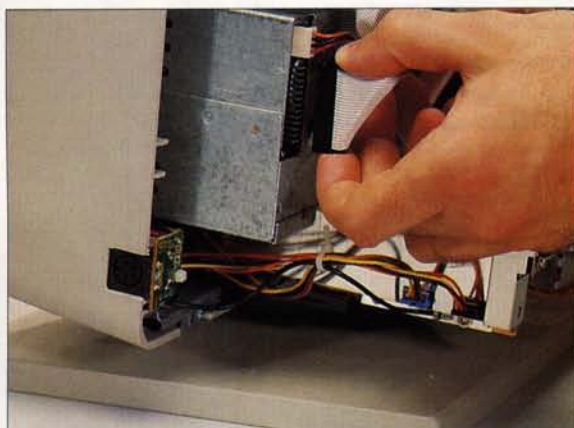
The part of the machine that is in most imminent danger from dust is the brightness control button. Make sure that that is well covered. Don't worry if you slightly overdo the filing - any excess space will be covered by the mask that you will fit at the end.



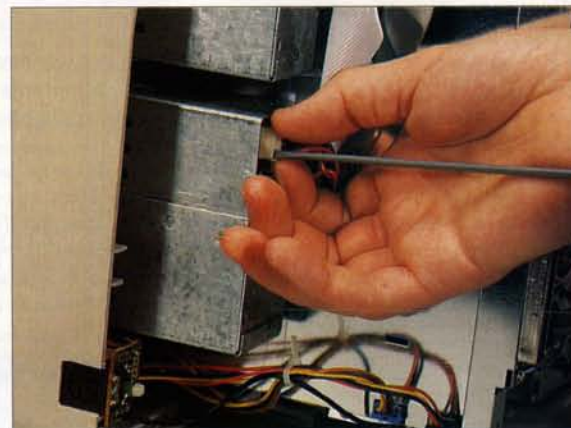
**1** This operation will take you somewhere between 30 minutes and an hour. Make sure that you have a clean, clear work surface available - it is important that you should have enough room to manoeuvre freely, and vital that there is no chance of any dust or other material getting into the opened machine. Also, have all the equipment that you will need to hand - a full list of everything that you will need appears in the margin note on the left. Much of it is provided with the drive itself.



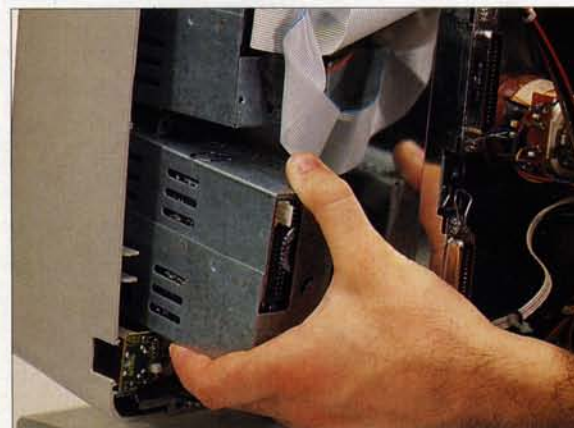
**2** Begin by switching off your computer at the mains, and removing all the attachments - the keyboard, printer and any interfaces. Leave the mains plug in the socket for a couple of minutes to allow any static to disperse. Take the back off the computer by undoing the six screws which are marked by arrows on the case itself. The back casing should come off without any trouble. Locate the bottom drive and its two connectors which are shown in the picture above.



**3** The lower of these two connectors will be attached to a wide, flat ribbon cable. One edge of it should be marked in a different colour to the rest of the ribbon - this is usually red, but in our computer, as you can see, it was blue. Make a note of whether this is on the upper or lower edge of the ribbon before undoing the connector by gently tugging and rocking the black plastic part. Do not pull the cable itself. When it has come free, find some way of tidying the cable inside the computer.



**4** The second connector is much smaller. It has four pins but it is held in place by a catch, and so is a little tricky to remove. You will have to prise the small flap of plastic on the left hand side of the connector over a catch on the piece of plastic which is underneath it. Use a flat-bladed screwdriver to achieve this. You can then carefully pull the plastic connector free. Again, do not pull the wires themselves, and find a way of tidying the wires away - perhaps just secured behind some other wires.



**5** Once the wires are free you can remove the drive itself. The old drive is held in place by four screws which are positioned at irregular intervals around the unit. Although they are not easy to reach, it is imperative that they are all undone! When they are, ease the drive out and put it to one side. The removal has to be done carefully - there is a lot of exposed circuitry inside the computer. Have a look inside the vacated space, to pinpoint the screw holes that held the drive.



**6** At this stage, you will have to make a small modification to the front of the casing. Find the template that came with the drive. Stick it - it is self-adhesive - to the PCW directly underneath the bottom disc drive. The right hand side of the template should be below the bottom right hand edge of the existing drive space. Put a clean duster or similar cloth inside the machine to catch the stray dust. Now file away the black part of the template. Take your time over this - it is quite hard work!



## Hints & Tips

### ● Step 6b:

The template which you use should be marked '8256'. If it is marked '9512' do not use it. Rather, get in touch with Silicon City, and they will replace it.

### ● Step 7:

At this stage, you will save yourself a lot of bother if you lie your computer face down on the work surface. But DO put a soft cloth on the surface first - there is no way that a scratched screen can be rectified.

### ● Step 8:

If your computer is lying face down, fix the screws to the screwdriver with a little bit of Blu-Tack. Screws lost in the depths of the machine are very hard to find!

### ● Step 9:

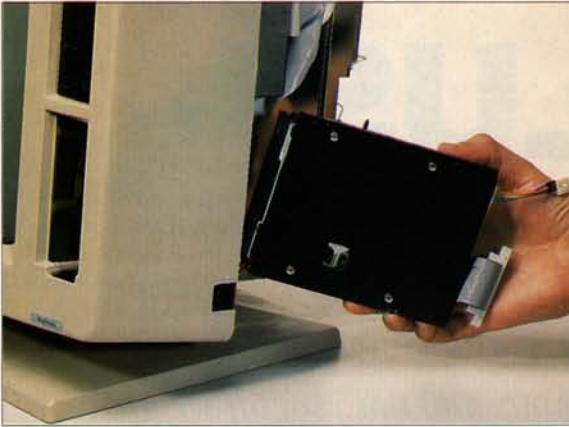
If your cable was attached to the old drive with the coloured stripe at the bottom, this will have to be reconnected with the 'cable' stripe at the other end of the connector from the 'drive' stripe. This may mean that you will have to remove a 'lug' or two from the connector itself. If so, use the file to gently file them away.

### ● Step 11:

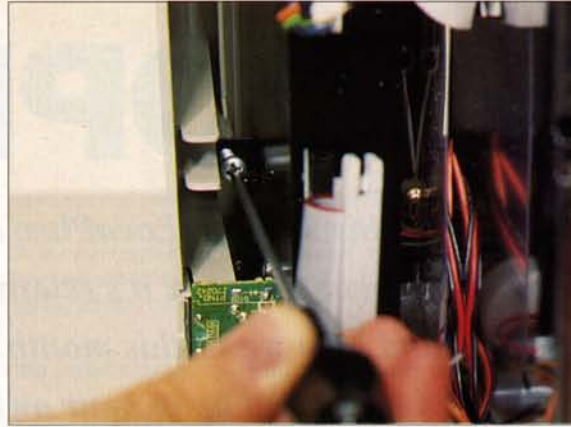
Again, having the computer laid face down on the surface, and a little Blu-Tack, will help you with refitting the back of the machine.

### ● Step 12:

Give the mask a 'trial' fitting before removing the backing and sticking it down.



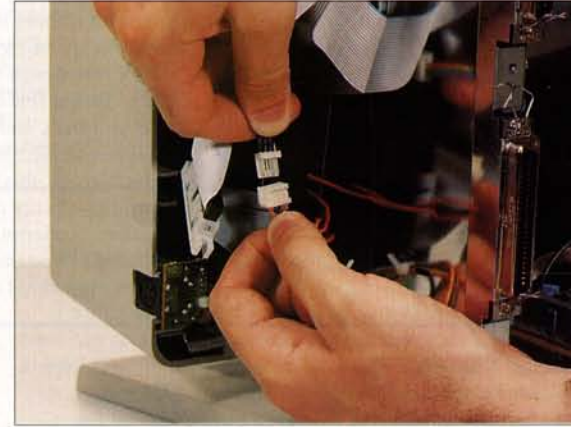
**7** Carefully remove the duster from the machine, and clear away any stray dust that may have fallen, both inside and outside the machine. Everything is now ready for the drive unit itself. Unwrap it from the packaging and carefully insert it into its new home - you will find that it is a tight squeeze, but with gentle manoeuvring it will fit quite snugly. Make sure that it is the right way up - the 'eject' button should be towards the top, and should more or less line up with the button on the A: drive unit.



**8** When it is correctly fitted, the drive should stand slightly proud of the front of the computer. Now you can screw the new drive into place. This time there are only three screws to do up, using three of the four holes used by the old drive. The three screws are provided with the new unit. When the drive is loosely in place it is clear where these screws should go - the one hole that is not used is the one that was at the bottom of the old drive. See the margin notes for a way of making this easier.



**9** With the drive securely fitted, it is time to reconnect the wires that were removed earlier. It is best to connect the 26-pin ribbon cable first. The important thing to remember is that the coloured edge MUST be the same way as it was before. In order to help you, the top of the cable which comes from the drive is also marked with a stripe. This should be considered as representing the 'top' of the original drive. If your original stripe was at the top, make sure that the two stripes now match up.



**10** The smaller, four-wire connector, which will carry the power to the new drive, can only be fitted in one way. The fitting is simply the reverse of removal, with the 'key' on the connection from the computer fitting neatly into the 'window' on the connection from the new drive. However since the connection from the drive is at the end of some wires, you will have much more room for manoeuvre. By the way, don't be worried by the fact that the connector from the drive only has three wires!



**11** Making sure that everything is neatly stored inside the back of the computer, replace the casing. Don't force anything - there is more than enough room for all the various components and cables - and don't start doing up the screws until the casing is happily back in place. If you do feel something in the way when you are putting the casing back, try to identify what is causing the problem, and reposition everything so that the casing will fit. Now do the screws up again.



**12** Your drive is now installed. However, it is a good idea to cover the empty space which will have appeared alongside it. The package that came with the drive will have contained a couple of 'masks', designed to fit snugly around the new drive. Each is in a different shade of 'PCW grey'. Choose the one that is closest to the colour of your machine and fit it over the drive, with the wider part of the mask towards the screen. Then just plug in your attachments, switch on and away you go!



# LOCOPLUS

Dear Liz

I often print working documents using the draft quality mode, and once I have finished editing, print them as final documents. Since the final documents have to be photocopied and faxed, I normally emphasise the whole document using the bold command, before printing in high quality mode.

However, if I use several layouts, I have to insert the bold command after each layout code, which is very inconvenient. Is there a way of achieving the same effect without following this tedious procedure?

Liz replies:

I don't think there is. But I also think that it doesn't matter. I do exactly the same thing: printing out in draft, editing and then in high quality - and I put bold commands in the draft quality deliberately (and then have to take them out again). It doesn't make any difference to the speed of the printer, it still only makes one pass at each line, but it gives a much clearer copy. Why don't you put the bold commands in when you first prepare the document and leave them there? Bold is just a word processing command, and is not really expected to apply to a whole document.

Welcome to this month's LocoPlus, our regular six page section devoted to LocoScript and it's relatives. We begin with LocoScript Surgery, and then we've this month's LocoFile tutorial. The section finishes with a round up of your own hints and tips. So, off we go!



Dear Liz,

Can you or someone on your fine magazine tell me something. I have encountered a disc failure: when copying with diskkit on my PCW8512 I received the following: "Disc error on drive B: Track 157, sector #00 - data error. This error is within file 2:HEWACC.091" I am not in trouble, because I do have a back up disc. But

what I would like to know is: as the location of the error is identified, can anything be done to eliminate or bypass it and by doing so, bring the disc back into use?

I am not after the secrets of Dave the Disc Doctor, I am just curious to know what this error message means, and if there is any way of avoiding it.



If you have back up, there doesn't seem to be anything to worry about - just make another back up and throw the disc away.

However, things wouldn't be so funny if you didn't have back up... Without, as you say, getting in touch with an expert disc-rescuing service - which you could do if the if the situation was desperate - there are several things worth trying, along the lines of. After

all, you've nothing to lose in a little harmless experimentation.

If you can copy the disc, then do so. You just might find that you are lucky.

If you can't, and if you can persuade LocoScript to load the disc at all, you may be able to copy single files. Sometimes a faulty disc will not load at all under LocoScript, but can be persuaded to load under CP/M. Although it will fail if you try to copy

the whole thing, it is often possible to copy at least some of the files, or even whole groups at a time, using PIP.

There's no point in trying to use the disc again, unless you know exactly what caused the failure, and that it is something that you can work round.

You can reformat the disc, and it may well work again, but the question still remains: why did it fail in the first place? Much better to buy a new one.



Dear Liz,

I plodded along quite nicely with my PCW 8256 using LocoScript 1 for almost a year until I decided to go for LocoScript 2. I was advised to buy the Loco 2/Spell combination and only used the small dictionary until I decided to upgrade the memory, thinking I could then start to use the large dictionary.

I have made a new Start of Day Disc over and over again, verified the discs, used brand new discs, tried all the different dictionaries, followed the instructions to the letter and still all I get when I try to spell check is the message 'Unexpected end of file'. Help! What am I doing wrong? I hope you can help me very soon, I'm dying of frustration!



It's a bit difficult to diagnose the fault without seeing what you're actually doing, but I'll have a go.

You cannot get the dictionary you want on your SOD disc, simply because there isn't enough room. To get it to work you will need to get the large dictionary on to the M drive.

Before you try anything else, prove to yourself that it works. Load the machine normally, but don't worry about dictionaries. Take a copy of the original master disc (Side 2) with the large dictionary on it, load it and copy the file over to group 0 on drive M.

Now try spell checking a file. Providing you do have the right spell check files on your SOD disc, it should work perfectly. If it was working before with the small dictionary, then you do have those files.

If it all goes well, you now need to incorporate that into the loading procedure, which will have to be done with two discs.

For 8512 owners, or with an expanded two drive 8256, this is no problem, you just put the dictionary disc in the second drive and the machine will load both automatically.

Disc management.				Printer idle. Using M:			
C=Create new document		L=Edit document		F=Full		M=Merge	
f1=Actions f2=Disc f3=File		f4=Group f5=Document		f6=Settings f7=Disc change		f8=Options	
Drive A:		Drive B: empty		Drive M:			
171k used 2k free 13 files		0k used 0k free 0 files		188k used 96k free 6 files			
group 0 171k group 4 0k				group 0 188k group 4 0k			
group 1 0k group 5 0k				group 1 0k group 5 0k			
group 2 0k group 6 0k				group 2 0k group 6 0k			
group 3 0k group 7 0k				group 3 0k group 7 0k			
A: group 0 13 files		M: group 0 5 files					
1 limbo files		0 limbo files					
MATRIX .#SS 11k		LOCUSPELL.DIC 160k					
MATRIX .#ST 12k		MATRIX .#SS 12k					
PHRASES .STD 1k		MATRIX .#ST 12k					
SETTINGS .STD 1k		2 hidden 4k					
9 hidden 146k							

All that matters is that the Dictionary ends up here: In group 0 of M drive

It's not quite so simple with an 8256. You will need to load them one after the other, and you will have to put a message on the first SOD disc to tell the computer that there is a second SOD disc to come after the first.

The instructions for doing this are not included in the LocoSpell manual, but you will find them on page 10 of the booklet called 'Update Information', which you should have. In case you don't, here they are, briefly.

Create a document in group 0 of your SOD disc, and call it ET.AL.

Don't put anything in the document itself. As soon as the editing screen

appears, just press [EXIT] and save it.

The existence of this file will tell the computer to ask for another disc after it's finished loading the first one.

Now all you have to do is boot up the computer as normal, but instead of seeing the Disc Manager screen, you'll see a message saying 'Insert next disc'. Put in the dictionary disc, which can either be on a separate disc, or on the reverse of your original SOD disc whichever you feel happiest with.

The dictionary will automatically be copied to group 0 of the M: drive, where LocoSpell will be able to find it, and use it as necessary to check your documents.





**Q** Dear Liz,  
In the April issue a reader asked how to make a Screen Shot. I tried on my PCW 9512 as instructed but I couldn't get it to print, in fact the message was 'Waiting for Paper' even though there was paper already there.  
I tried it on Landscape format but got the same

message and every time I pressed the EXIT key to start printing the menu reverted to the Disc Manager. Is the message or key press sequence that will produce a screen shot/dump different on a 9512 from that on the 8256?

**A** Well, yes and no. You can't do it the same way as you do with the 8000 series machines, and that's because you can't do it at all.

The printer with the 8000 series machines is a dot matrix printer. Nine minute pins hit the ribbon in an order controlled by the computer and 'draw' whatever character, symbol or other pattern of dots is necessary.

What you have is a daisy wheel printer, which works on an entirely different principle.

If you take the print wheel out and look at it, you'll see that all the characters are physically embossed on the 'petals' or 'spokes' of the wheel.

Regardless of what the computer wants to print, the printer can only

deliver the characters that are actually on the daisywheel itself.

That basically means the letters A-Z (lower and upper case), the numbers 0-9 and simple punctuation. Nothing else.

A screen dump is really a graphic, nothing to do with word processing. Your 9512 printer can't handle that.

People have been caught out badly this way, and if you're considering buying a machine, take note!

The LocoScript software supplied with all the PCWs is capable of handling a vast range of characters and symbols: Greek, Cyrillic, all European accents, scientific and mathematical symbols etc. But the daisy wheel printer cannot print anything like all of them.

Some of them can be made available

by using special wheels - for full details see the June 1991 edition of 8000 Plus

The many non-letter characters and graphics which are shown in the manual can be displayed on the screen, but they cannot be printed by a PCW 9512 printer. You would need to add a dot matrix or ink jet printer to print them - and even then you can get caught out.

Only certain printers - those which can be used in 'download' mode, which allows the computer rather than their internal electronics to control their output - can actually print the full range of LocoScript characters.

So if you must have a printer for your 9512 that will print out the full range of characters and graphics, choose carefully and all will be well.

Dear Liz,  
Mine is a very simple query, but one which may interest other people as well. Assuming that I have all the "necessary" files on my LocoScript 2 Start of Day disc, what is the very minimum number of files I need to have on my Data Disc before I start to use it to store my working files? I had assumed that the answer was "none" but this point is not mentioned in the manual.

Liz replies:  
Absolutely right. All you have to do to a new data disc is to format it. You don't need any files on it at all.

There is a little confusion over this, as people sometimes notice that a newly formatted disc and empty disc does not have the number of K available that they expect, (either 180k or 720k).

The missing K are holding the mysterious "Disc Address Mark" which is put on the disc when you format it, and basically, tells the computer how to access the information held on that disc. It's not very clear in the manual.

**Q** Dear Liz,  
I am Secretary of the local Rugby and Cricket Club and although I Have a full list of members in a LocoFile data file I appear to be unable to print out a list of members in alphabetical order, these simply having been loaded as they became members.

Is it possible to print out a list in alphabetical order and if so, how is it done?

I would appreciate your dealing with this enquiry in your LocoPlus section or elsewhere in your most excellent and helpful monthly magazine.

**A** Just change the index. This is quite a simple process, and is covered fully in the manual.

However, it may well be that you haven't actually set up any indices, especially if you didn't understand the manual. If you haven't set up any indices, it's not a disaster. It can still be done even in a big file, although it will take a little time to do.

You will need to select the following route: 'Change datafile set-up', then 'index' then 'Create index.' Then choose 'Surname', or whatever the field with the name in it is called, and go and have a cup of coffee.

You really need to put a bit of thought into this before setting up a database. If you want to sort the file by surname, which I assume you do, you need to have the surname separate from the first name or initials. LocoFile will sort by the first letter it finds in a field, so if you have J. Lawson followed by H. Weston, H Weston will come first.

So step one may well have to be re-typing all those names, with the initials either after the surname, or possibly in a separate field.

In fact, it is probably best to put the initials in a second field, which will cover all eventualities. You can then do your search using a Main key for the surname and a Sub key for the initials. This will mean that with names like M.

The screenshot shows the LocoFile software interface. At the top, it says 'MEM LocoFile.' and 'Printer idle. Using B.M.'. Below this, there are fields for 'Index: Surname', 'Unique sub key', 'Item: Surname', and 'Col:14/60 Line: 2/30'. A menu bar at the top includes 'f1=Actions', 'f2=Index', 'f3=Item', 'f4=Print', 'f5=Goto', 'f6=Find', 'f7=Extract', 'f8=Options', and 'EXIT'. A 'Set current index' dialog box is open, showing a list of fields: 'Surname', 'First Names', 'Address', 'Post code', 'Tel: Private', 'D.O.B.', and 'Date last paid'. The 'Surname' field is selected. Below the dialog box, the main data entry screen shows the following information: 'Surname: Surname', 'First Names: 1st Names', 'Address: Address', 'Post code: DD8 7YT', 'Tel: Business: 0382 456 789', 'Nationality: Scottish', 'Occupation: Airline Pilot', 'Next of Kin: Elspeth Anyone', 'As above: As above', 'Work: 0382 786 342', 'Date last paid: 23 01 91', and 'Remarks:'. On the right side, there is a list of files: 'e 5 files', 'roup 4 0k', 'roup 5 0k', 'roup 6 0k', 'roup 7 0k', '3 files', 'C 8k', 'P 4k', and 'T 2k'.

In the datafile, [f2] lets you choose the index by which the records are sorted. However, if you haven't set up any indices for the file, they won't be there...

Good and B. Goodison will be correctly sorted - with the surnames in the right order.

In your case, it does rather sound as if you may have got the database into a bit of a muddle. However, don't panic. If you do have to re-organise it all, you won't need to re-type everything as long as you have LocoMail. You can get LocoMail to read the data into a

document, set up a new field pattern at the top and get your new, better organised and indexed database to read it all back and sort it all out. It is possible to carry out major surgery on a database, but you need to be very, very careful about how you proceed.

Whatever you do, do not do it to the original. Make a copy first. It is all too easy to delete that vital information. ➤





Dear Liz,  
Reading your answer about phrases on page 22 on the May issue of 8000 Plus Magazine I feel a bit surprised at your statement that 'you can, if you wish,' have a different PHRASES.STD in each group', etc. You are right, of course, but your answer seems to imply that it is not possible to have more than one set of phrases in the same group, which is not exact. I know from my own experience that, as a matter of fact, it is perfectly possible to have several PHRASES.STD in the same group. I call them PHRASES.STD, PHRASESA.STD, PHRASESB.STD and so on. LocoScript does not seem to have any objections to having them all in the same group, and I can load them whenever I want them.

Liz replies:  
This brought me up short. It simply never occurred to me. I've never come across a situation where this would be necessary: most people only work with one set of phrases most of the time anyway, but come to think of it, there's absolutely no reason why not. Hope it's useful to other readers!

**Q** Dear Liz,  
I have Locoscript v.2.29 which promises me (in booklet) large edit characters and doesn't deliver. What am I doing wrong?

**A** I'm not quite sure what the problem is. To switch on large edit characters, you have to do it from the Disc Manager. Press [f8] and tick, (use the [+] settings key) the option. It doesn't work everywhere, because it really is what it says it is: an option for edit characters only. It won't make any difference to the Disc Manager screen. You have to create or edit a file and get some text on to the editing screen before you can see it. Is that possibly what makes you think that it's not working?

But perhaps what you mean is that you can't print the large characters. Again, it is exactly what it says: large EDIT characters. It's just designed to

Disc management.				Printer idle. Using M:			
C=Create new document		I=Edit document		F=Fill		M=Merge	
f1=Actions	f2=Disc	f3=File	f4=Group	f5=Document	f6=Settings	f7=Disc change	f8=Options
Drive A: 171k used 2k free 13 files		Drive B: 160k used 13k free 1 files		Options			
group 0 171k	group 4 0k	group 0 160k	group 4 0k	Show Linbo files			
group 1 0k	group 5 0k	group 1 0k	group 5 0k	Show Hidden files			
group 2 0k	group 6 0k	group 2 0k	group 6 0k	<input checked="" type="checkbox"/> Large edit characters			
group 3 0k	group 7 0k	group 3 0k	group 7 0k	"Sticky" shift keys			
A: group 0 13 files		B: group 0 1 files		M: group 0 5 files			
1 linbo files		0 linbo files		0 linbo files			
MATRIX .WSS 11k		LOCOSPEL.DCT 160k		LOCOSPEL.DCT 160k			
MATRIX .WST 12k				MATRIX .WSS 12k			
PHRASES .STD 1k				MATRIX .WST 12k			
SETTINGS .STD 1k				2 hidden 4k			

[f8] from the Disc Manager lets you switch on Large edit characters, but there's no effect on the Disc Manager Screen

make it easier for people with sight problems to use the machine.

However, you can print them out if you have a dot matrix printer, perhaps to use them for a notice.

What you will have to do is set up the screen exactly as you want it, and then use the 'screen dump' technique ([EXTRA] plus [PTR]) to transfer it to

paper. Don't forget to make sure the printer is loaded with paper, because in that situation the computer does not stop to think in this situation, it just acts.

The letters produced in this way are more solid than those produced in the normal way with Pitch 10 double size. The only problem is that you'll get all the other information from the screen, too.

**Q** Dear Liz,  
The magazine continues to be most useful. Thank you!  
Two LocoFile questions: (1) mass extermination of record, (2) copying of Datafile set-up. Erasing one record causes me no problem. But there seems no way of erasing more than one without doing them all individually. OK for a few - tedious for a lot - too much hard work for all records, as I want to re-use the set-up in a similar file. Copying via LocoMail the ones I want to keep, copying them back into an empty file and throwing away the original would work but for situation number (2), which is:

There seems to be no facility for copying the set-up alone. i.e. without records, so that it's necessary to start from scratch if I want a second database similar to the first but for

**A** I don't really have any new answers on this beyond the ones that you have mentioned yourself. However, I'm including this just in case anyone else has come up with something any cleverer than we have.

The method you describe is exactly the one I use myself: by using LocoMail. You can be pretty subtle about that and I

don't find it too much of a chore. As far as set-ups go, I always make a copy, with no records, as soon as I've set up any database at all, and keep it stored away on disc. If I then update the set-up as I'm using the database, I update my empty copy as well, so I can always go back to it and start a new set of data from scratch without any bother.

a new and different set of data records.

Copying the whole file under a new name and deleting all the records would be one possibility - but we're back to (1): there's no quick way of doing that.

Using templates or doing an early copy of the original set up before many records are added is possible as a start but this won't necessarily contain the final version of the file - I tend to refine it when it is in use.

I've used dBase II where both the above operations are simple and I suppose I'm looking to repeat them here.

If there are ways of doing these I'd be glad to know and will eagerly scan the pages of the magazine for a response. to my question - or one similar to it, of course!

You can do a bit more with the PC version, but that's not much help to you if you are using the PCW, of course.

But has anyone else got any better ideas? I have wondered if there's any clever way of using the fact that some records are marked as 'changed' and that you can clear that before you start, then mark a group of them...

**Q** Dear Liz,  
I have an Amstrad 8256 and LocoScript 2, version 2.28a. Frequently when creating or editing text I press [Para], [EOL] or [Page], only to find that the cursor runs away to the right, far beyond any margin that has been set, which is usually something between 80 and 85.

**A** I haven't come across this as a software problem, but I have seen it happen on several occasions.

Next time it happens, press [f8] so that you have the 'show state of' menu and tick 'spaces', by moving the cursor over that option and pressing [+]. You may well find a long line of little triangles appearing on the screen.

If you do, then you're using spaces when you should be using [RETURN]s, or else are introducing spaces into the text in some other way. The software is actually waiting for the next character before it breaks the line, and the spaces will go an awfully long way across the screen before it gives up.

I can see no cure (or reason) for this in either the supplied manual or in the Clarity Guide and wonder if you have come across this from other sufferers. Any help you can give would save me from having to bring the cursor back, very laboriously from over there time and time again.

f1: group 3/DOCUMENT.000 Editing text.		Printer idle. Using M:	
Layout 1 P10 L51 CR+0 LP6		Page 1 line 8/54	
f1=Actions	f2=Layout	f3=Style	f4=Size f5=Page f7=Spell f8=Options EXIT
If you type in a paragraph of text, perhaps you would like this, is, to fill up a few lines, you would normally press return at the end of it... Like this, ¶			
But some people don't do that... Instead, they just press the space bar until they get to the next line or they have to give up... If I switch the spaces on with f8, you can see that happens:.....			
¶ The line will just keep going, and if you try to go to the end of it with EOL, all the text will disappear as the cursor goes to the end of the spaces.			

The triangular shapes denote spaces, and can be seen via the menu under [f8]

If you don't see those triangles, I don't know what is wrong. To get the cursor back, just press [ALT] and [LINE] and

the cursor will move back to the start of the line. You can sort any problem out from there as necessary.



# Mind over Matter

*LocoFile may store all your facts and figures but it can also be used to manipulate them. Karen Donaghay shows you how to produce a report*

**M**any people know that LocoFile is a thinking, questioning database. They realise that from the breadth of its knowledge, LocoFile could probably answer all sorts of questions. For example, it could tell a market researcher how many accountants there are in Liverpool and whether they all drive BMWs and drink G & Ts. Yet, despite the many words of wisdom stored within the average LocoFile database, for most people the problem is using it in an intelligent way.

So, as an IQ-raising exercise, there are few things that compare to the LocoFile report. A report can transform an ordinary LocoFile database into an intelligent expert. This means that it is able to answer any number of questions on the facts and figures at its command.

Take a certain record collector who needs to find track within his collection – let's say Delilah by Tom Jones. He has

lots of Tom Jones' records and not all of them are in pristine condition. A report can answer questions like: "What are the names of all the Tom Jones records in my collection; which ones contain the track Delilah and are they in good condition?"

The trouble is that this sort of list doesn't fall into the proverbial lap. Instead, it has to be dragged out of LocoFile, kicking and screaming, by using one of the PCW's most complex programs. We speak, of course, of the infamous LocoMail.

LocoMail is in essence a programming language, yet it has driven many a programmer to distraction and non-programmers have been known to give up in disgust. Although it is easy enough to use for simple mail merges, try anything more complicated and you could run into problems.

The good news is that there is an easier way. Why not let someone else do

## TIP OF THE MONTH

When you print out a report, the results will be listed in the order that they are found. So if you want our example report printed out in Name order or Title order remember to sort the database before you start the report.

the hard work for you – in other words, write a LocoMail program to produce reports? Then all you will have to do is adapt the program to your own needs. Of course, this is ten times easier than writing it from scratch and in this tutorial we will do the honourable thing by providing you with a standard report program, which you can adapt later.

Let's take a look at one reader's dilemma. It is a typical case for the LocoMail report program to solve, and serves as a good example.

## Q Dear 8000 Plus,

Thanks to LocoFile, I now have my entire library of books stored in a database. Everything I need to know is there: title, author, publisher, subject, and category (fiction or non-fiction).

But, what do I do now? What I would like is some specific lists. This could be, for example, a list of all my poetry books or all of the non-fictional books on politics. I'm sure that what I have in mind is not beyond the scope of LocoFile, but how do I do it? Maybe you can help. I'm confused!

## A Dear Confused,

You are absolutely right. Not only is this within the realms of our expertise, but LocoFile can solve your problem.

You must understand a few points before we start. The first is an obvious one. All of the basic information needs to be stored in your LocoFile database and in the right form. But more on that later.

You will also need LocoMail to separate the wheat from the chaff. It does this by testing each LocoFile record to see if it fits your criteria. (If you don't already have the LocoMail program, see our margin note for more details) Follow our step-by-step guide and you will soon be able to produce book-lists that are subject to any test you care to devise.

## Script-Ease

The Locomotive newsletter, *Script*, often gives tips on writing LocoMail applications. So if you want to know more, it could be a good place to look. Call Locomotive Software (0306) 740606, or write to them at Dorking Business Park, Dorking, Surrey, for further details

## Mail Box

Once you leave the beginners' slopes behind in LocoFile you will soon find that without LocoMail you are like a skier without poles. To get the best out of LocoFile you need its sister program: LocoMail, available from Locomotive Software (telephone number and address above) for £35.19

## STEP 1: ESTABLISHING THE DATABASE

The database kicks off to a highbrow start with a book called English Social History by G.M Trevelyan. Create a new database and copy this layout into your LocoFile setup card. There are five fields in each record: Title, Author, Category, Subject and Publisher. These should all be pretty self-explanatory.

There are over a hundred books in the original database so, to make this a fair test, you should fill in as many book entries as you can. We are going to find all the poetry collections so make sure that several of your entries are fictional poetry books.

To do this, you need to put the entry "fiction" in the Category field and the entry "poetry" in the subject field. An

important point to note here is that, although it may seem obvious that a poetry book is going to be a work of fiction, bear in mind that books of literary criticism, on the topic of poetry also exist. These would be under the subject of poetry, but classed as non-fiction – not what we are looking for.

The moral is that, whenever you need to set up the criteria for a report you should be very careful to define exactly what you need. Always remember that the PCW cannot think for itself, so you have to be aware of every eventuality. For example, if "poetry" was occasionally entered as "poems" the PCW would overlook this record in its search for the correct entries.

g: group 0 DATA .SS LocoFile.		Printer idle. Using A: M:	
Index: Record number	Unique	Item: None	Col:20/60 Line:14/15
f1=Actions	f2=Index	f3=Item	f4=Print f5=Goto f6=Find f7=Extract f8=Options EXIT
Record:1			
23k used 14	Title		
GROUP 1 20	English Social History		
GROUP 2 0	Author		
GROUP 3 0	Trevelyan G.,M.		
A: group 0	Category		
20 linbo	Non-fiction		
CUSTOMER.DA	Subject		
DATA .SS	Publisher		
DATA FILE .00	Penguin Books		
LOCO .SS			
NEAR .BA			
MEMOR22.CO			
TEST .DAT			
TESTMER.			

Begin at the beginning in LocoFile, by copying the layout of this simple library database. The fields shown here can then be looked at in detail by a LocoMail report program

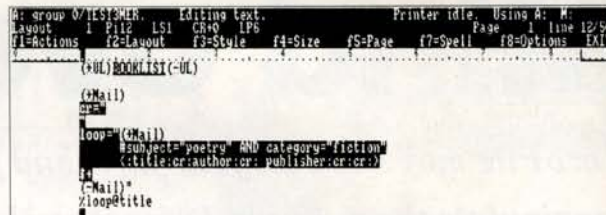


## STEP 2: INCORPORATING THE LOCOMAIL ROUTINE

Now you can type in the LocoMail program. Although simple tasks using LocoMail are easy to understand, here it is used as a programming language and the result is quite complicated.

To end up with the LocoMail program shown in our screenshot, create a new LocoScript document and copy in the text exactly as we show in our box. The codes (shown in brackets) are

The LocoMail program looks like a LocoScript document, except the LocoMail commands are highlighted in green



### THE LOCOMAIL ROUTINE

```
(+UL)Booklist(-UL) ——— (A)
(+Mail)
cr=""
loop= (+Mail)
#subject="poetry" and category="fiction" ——— (B)
<:title:cr:author:cr:publisher:cr:cr:> ——— (C)
$+(-Mail)
%loop@title ——— (D)
```

**A** The title **B** The conditions **C** The actions **D** Starting orders

The LocoMail program looks in all the right places to find the answer to your enquiry. Copy it in carefully: a missing quotation mark can be fatal!

obtained by pressing the [+] or [-] key and choosing the relevant code from the menu. When you have finished, your program will look like the one in our screenshot, with the LocoMail commands automatically highlighted.

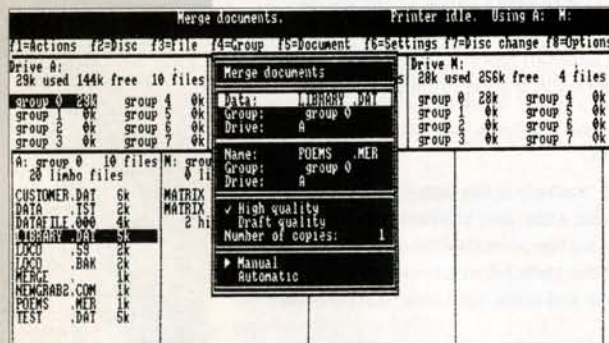
The most important line of the program is marked line B. Its function is to find out if the subject is poetry and if the category is non-fiction (read 'if' for #). If this condition is met then the program performs whatever action is described within the pointed brackets that follow. In this case the action is to print out the current book title plus a carriage return (cr), the author followed by another carriage return, and finally the publisher, followed by two more carriage returns. This part of the program is repeated for every record

within the database. The line saying loop= (+Mail) and \$+ (-Mail) are used to define the section of the program (called loop) that will be repeated over and over again.

LocoMail does not actually go into action until the last line. The part that reads %loop@title tells the program to perform the section called loop until it finds a book with no title. As there cannot be a title-less book this marks the end of the process.

Don't worry if you don't understand all of this. The concepts are explained in far more detail in the LocoMail manual. And if you find the manual is beyond your comprehension you can learn to adapt this basic program without understanding the intricacies. But first, let's see our program in action.

## STEP 3: MERGING



The LocoMail routine is sheer poetry in motion. The results are shown on the left of the screen. Meanwhile, the user decides whether to save the list for posterity, or simply discard it

The next step is merging, and that is the easy part. Simply select your LocoMail document from the Disc Management Screen. Press [M] for Merge, move your cursor over the database that you want to use and press [ENTER]. Your original LocoMail document will flash before

your eyes, and the final result – the work of several illustrious poets – should appear on screen.

The next stage is to decide whether you want to print this list out, to save it or to discard it, as shown in our screenshot on the left.

We chose to 'Save and Print' the result and the list is printed out as it was shown on screen.

To save the list you enter a name and press [ENTER]. The result is kept as an ordinary LocoScript document.

### Conditions

= equals  
< less than  
<= less than or equal to  
> not equal to

### Test run

Now that you've learned the basics, here's a little teaser for you. How would our book-lover find out the title and publisher of every book written by J.R. Hartley on the topic of Fly Fishing? The answer will be revealed in next month's tutorial!

## STEP 4: ADAPTING THE PROGRAM

There are three lines in the program you need to adapt: the title, the condition line, the action, and the part which tells the program how long to continue. These lines are marked A, B, C, and D in the box.

The title is the most obvious change. Anything you type in before the first (+Mail) command will be treated as an ordinary LocoScript command. So the title of your report can be anything from "The secret life of accountants" to "The Tom Jones collection". In other words you can delete the words Book List and type in whatever you choose.

The conditions are a bit more tricky. As we mentioned earlier the character # means "if". When translated, the line reads: "if the subject equals poetry and the category equals fiction". For a different database these comparisons would be meaningless. So you need to adapt. For instance, the first question about the accountants would come out as #Town="Liverpool" AND Drink="G&T" AND

Car="BMW". But, you have to be careful here. If, when filling in the database, you happened to fill in G & T or even Gin and Tonic rather than G&T then these values will not match your criteria and will be ignored. One way around this is to use the OR statement giving you the line: # Town = Liverpool AND (Drink = "G&T" OR Drink = "G & T" OR Drink = Gin and Tonic) AND Car = "BMW".

To find Delilah also requires a bit of thought. The first part is easy, #Artist = "Tom Jones" AND Condition = "Good". But finding the right song means looking at every track on the record, since you don't know in advance which one it will be. This would end up being #Artist = "Tom Jones" AND Condition = "Good" AND (Track1 = "Delilah" OR Track2 = "Delilah" OR Track3 = "Delilah" ...) and so on. There are also other ways of testing the fields. To find the names of people in a database who were over thirty, try this test #Date\_of\_Birth > 1961. Note that because

this is a numeric test, there are no quotation marks around the 30.

In the margin opposite is a summary of all the conditions you can use. We also suggest that you look up "conditions" in your LocoMail manual and read that section carefully. The next part is far easier. The actions are used to define what you want to print out when you find a match. For instance, if you wanted to print out two fields called Name and Tel\_No then it would look like this: <:Name:cr:Tel\_No:cr:cr:>.

The cr stands for carriage return and ensures that each new field is printed on a new line. At the end there are two carriage returns, so that the records do not merge into each other. In the last line you would need to put in your own field instead of title. You can choose any field within your database that you know will never be left blank. And that is all there is to it. Do try working through our example before you experiment with your own database.





# Over to You!

*This is the page that comes straight from the horse's mouth! Five of your fellow readers reveal some of their favourite LocoScript secrets*

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## New order

In the July issue of 8000 Plus, Liz Bruce stated that there is no easy way to extract names in alphabetical order from a

LocoScript document without using LocoFile. However, it is possible, with a bit of fiddling, to do this with the help of LocoSpell, so long as the LocoScript package is version 2.29 or later (2.28 for the 8000 machines).

This is best illustrated by means of the following examples. The document should first be copied into memory so that the original is preserved. Because the user dictionary is utilised, it is necessary to add to each surname the prefix "aa", so that they will appear together at the beginning of the dictionary's list. This will also ensure that names having main dictionary meanings - Smith, Brown, Low and so on - are not ignored by the user dictionary update. Take the following example:

**1.0 In the first coach were aaPomeroy, aaCallaway, aaHooke, aaZeller, and aaVelate. As there was no more room in the coach, aaHook, Mr aaBacon, Mrs aaBacon, aaThatcher, aaAbel and aaCaldecot had to travel in the second one.**

When the above text is spell checked, with automatic addition to the user dictionary selected, it reports that 33 words were checked and 10 new words were added. (This is because it could only add "aaBacon" once - one small snag in the process).

Next type [f1] [I][ENTER] - or the 8512 equivalent - so as to insert a file at the bottom of the document. Then cursor across to USERSPEL.DCT, and press [ENTER] twice. This starts to insert the entire contents of the user dictionary as a column one word wide, but this can be aborted after the first part of interest has appeared, by pressing [STOP] twice. Here is the list, edited into lines to save space.

**1.1 aaabel, aabacon, aacaldecot, aacallaway, aahook, aahooke, aapomeroy, aathatcher, aavelate, aazeller ....then: abut, accordant, and the rest of the user dictionary up to the STOP command.**

Any remaining, unwanted dictionary words can be deleted by cursoring to "abut", pressing [CUT] and [DOC] and [CUT] again, when the screen stops scrolling. Now remove each "aa" by using automatic [EXCH] to replace them with nothing. This produces the following list, which requires only the

addition of initial capital letters.

**1.2 abel, bacon, caldecot, callaway, hook, hooke, pomeroy, thatcher, velate, zeller,**

If the names appear in the document as surnames with following initials, the procedure is just as simple, and the results are more satisfactory, since one can now distinguish between any number of Smiths and so on. While adding the "aa" prefix to the surname as before, also delete the punctuation and spaces between the surname and initials, and separate the initials from the surname with an apostrophe (which LocoSpell places after "z" in the alphabet). For example, if you start with:

**2.0 Jones, P.F; Smith, T.W; Farmer, H.K; Smith, G.J; Brown, L; Jones, P; Smith, T.W.K, Eans, L; Smith, T.**

and change this to:

**2.1 aaJones'PF; aaSmith'TW; aaFarmer'HK; aaSmith'GJ; aaBrown'L; aaJones'P; aaSmith'TWK; aaEvans'L; aaSmith'T.**

Now you can use LocoSpell as before, and add these words automatically to the user dictionary; it checks 10 words and adds 9. Now insert this updated dictionary into the document as in the first example, to produce another column of words that begins with:

**2.2 aabrown'l, aaevans'l, aafarmer'hk, aajones'p, aajones'pf, aasmith'gj, aasmith't, aasmith'tw, aasmith'twk, abut...**

Next use Find and Exchange twice, (aa to nothing and apostrophe to comma+space) to produce the following list, which needs only a little more editing to produce an acceptable result.

**2.3 brown, l, evans,l, farmer, hk, jones, p jones, pf, smith, gj, smith, t, smith, tw, smith, twk, abut...**

At the end of the day, do not save the amended user dictionary to disc, as advised by the PCW. If you do, the strange words you have created will come back to haunt you in the future.

I must admit, this explanation is somewhat long winded but, like most computer techniques, it is easier to do than it is than to describe.

**A S Velate  
West Sussex**

## Window on the world

My tip for window envelopes is much more simple than others I've read: it also helps in the folding of the page before putting it into the envelope.

At the top of your letter type a full stop, then press [RETURN] five times. Type your address (or leave three to four lines of space for an address) then press [RETURN] four more times, followed by another full stop. A couple more presses of the [RETURN] key and then you type in your address and the date.

Simply make your first fold under that second full stop, then fold again. The tiny dots are most unobtrusive, and once you've done the first one, you copy and edit to suit each time, or have it as a template in a LETTER.WIN file. This folding suits an 8.5 x 4.25" window envelope.

**Avril Gell  
Gillingham**

## In the dark

Stencil duplicating is the cheapest way of producing lots of copies and a daisywheel printer makes a reasonable stencil. I was told in the shop that the 9512 printer would work without a ribbon. At home, sometimes it did, sometimes it didn't. The secret is a sensor on the print head. If light shines on it - for instance, through the transparent bit at the end of the ribbon, it stops the printer.

The answer is to keep it dark! Not necessarily pitch dark; put a bit of paper on the dust cover and the printer goes on in ignorance of the lack of ribbon. Don't forget to press [+D] before you start and make sure that you keep the printwheel free of stencil wax.

**Reg Bedford  
Cumbria**

## On the move

My tips may be obvious, but they were news to me when I discovered them.

When you're at the bottom of a page, you can get quickly to the top by pressing the [ALT] {PAGE} keys together. You can press them several times to get to the top of a multi-paged document, or [ALT][SHIFT][DOC] will get you there straight away.

For the reverse effect, pressing the [SHIFT][DOC] keys will take you to the bottom of the document.

Pressing [SHIFT] plus the upward or downward cursor keys will move you up or down twenty lines. Or, try pressing the [SHIFT] key plus the left or right arrow keys, for big jumps left and right. These even work when cutting and pasting. In fact, why not test out the [ALT] key with all the other keys!

**Joe Unwin,  
East Sussex**

## Take note

I'd like to give you a small tip for LocoScript users which I invented. A rather unpleasant feature of LocoScript 1 and 2 is that they cannot make footnotes automatically. You have to do this manually and then a problem with the separator appears between the last line of the main text and a footnote, especially when justification is on. You cannot just type in [RETURN] on the last line of each page, because you would probably like to have the last line justified too. So, my solution is to have a special "word" consisting of, say, 15 hard underlined spaces, stored in PHRASES.STD, and to paste it on the end of the last line of the main text. I have defined a layout for footnotes and joined its code to my separator together with a new line code.

Then, immediately after typing in one key, say X, I can start to edit a footnote. But I must still count lines on a page, unfortunately. Jerzy Witczak  
Poland





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been up to financially from the 'Statement' part of the main menu. There are several ways of displaying this information. For each you will have to tell the computer which records you want to start and end with, and then choose whether to have a 'Single category' display – which will just display the relevant entries from a particular category – a 'Condensed' display, or a 'Full width' display.

Of these last two, a 'condensed' display will give you a read-out of every entry between the two record numbers you have set, stating the category of each, and 'Full width' will give each category a column to itself. The 'Full width' display can be confusing at first, since you have to 'pan' from side to side to see certain categories, and whilst panning it is far from clear which figure belongs where.

### Scroll on

Incidentally, these 'Statements' scroll up the screen. You can choose (from a menu bar at the top of the screen) to alter the speed of this scroll, and you can pause and restart it, but beware – the response to these commands is slow – sometimes desperately so.

The menu bar also gives you access to a sub-menu (eventually – this option only becomes available after all the records have scrolled round once, and that could take a long time), which besides giving you all another chance to select the 'Statement' options also gives an 'Analysis' menu. Again, this analysis only works between the two record numbers that you have provided, but what it does could be very useful.


First of all, the new screen shows the balance at the start and end of the period in question, and the overall gain or loss in that time. Then taking each category in turn, it tots up the total for each of them, so that you can see how your income and expenditure budgets (displayed separately) break down. In addition, you will be given the percentage of the total that each represents. This could prove rather disturbing, but it will give an indication of where economies could be made.

And if you are one of those people who do not react very well to figures, you can always choose to have this same information displayed as a graph. Alternatively, you could take the original figures away as a printout to mull over. As the printout material is quite straightforward, it will work on both the 8000 dot matrix and the 9512 daisywheel printers. Compatibility is no problem.

And that is the extent of the program. Nothing more, nothing less – simple input, output and analysis.

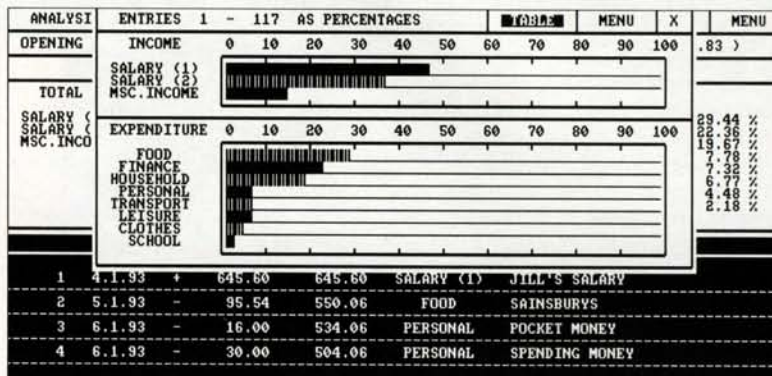
### To Budget or XBudget?

The only possible point of confusion arises from exactly what you can keep on one disc. Usually, a program of this sort would allow you to construct files which you could then save to disc, and would be able to have several files living quite happily on the same disc. Budget Accounts, though, is different. It stores

ANALYSIS OF ENTRIES 1 - 117				FROM 4.1.93 TO 28.4.93				MENU	
OPENING BALANCE		£	0.00	CLOSING BALANCE		£	-11.83	( - £ 11.83 )	
INCOME				EXPENDITURE					
TOTAL		£	7247.09	TOTAL		£	7258.92		
SALARY (1)	£	3453.00	47.65 %	FOOD		£	2137.32	29.44 %	
SALARY (2)	£	2719.62	37.53 %	FINANCE		£	1623.80	22.36 %	
MSC. INCOME	£	1074.47	14.83 %	HOUSEHOLD		£	1427.50	19.67 %	
				PERSONAL		£	565.00	7.78 %	
				TRANSPORT		£	531.10	7.32 %	
				LEISURE		£	491.30	6.77 %	
				CLOTHES		£	325.50	4.48 %	
				SCHOOL		£	158.20	2.18 %	

1	4.1.93	+	645.60	645.60	SALARY (1)	JILL'S SALARY
2	5.1.93	-	95.54	550.06	FOOD	SAINSBURYS
3	6.1.93	-	16.00	534.06	PERSONAL	POCKET MONEY
4	6.1.93	-	30.00	504.06	PERSONAL	SPENDING MONEY

When you have seen your statement scroll past, you may want to analyse it more closely. If so, you'll get this sort of display, which lists all your categories, together with their totals



You can also choose to display your output as a graph – excellent for those of us who don't relate very well to figures. The information is expressed as a percentage of the total

its information as part of the program itself. There can be only one set of accounts per program, and therefore, one would have thought, only one set of accounts per disc. But Codex have provided the means of putting two sets of accounts on to the same disc – a second program, called "XBUDGET".

Identical in all features to the original program, it stores its information using different file names, and so confusions are avoided. Incidentally, on the master disc XBUDGET comes with an set of examples files, so that you can put the program through its paces and get used to it before setting up your own data. The BUDGET program itself is blank on the master disc.

To create a new account, you must either use a copy of this blank BUDGET program (a copy, that is, from your back-up disc, because you will not be using your master disc), or else you must 'blank out' an old BUDGET or XBUDGET program. 'Blanking out' is controlled by the 'New account' option from the main menu; setting up the new file, using the procedure described above, follows on directly from this.

By now, the more experienced computer buff will have recognised that Budget Accounts is different in one more respect. The archetypal accounts package is the programmable spreadsheet. Budget Accounts avoids this.

It runs more along the lines of a simple database. This rather limits what it can do. For instance, it cannot be easily used to 'experiment' – putting a few hypothetical values into an account and see what the outcome would be at the end of the year is not really on. No

slipping in the expense of a new car around Christmas-time, and seeing if a hypothetical pay-rise in February would have the bank manager smiling by July.

### Referential treatment

It is also difficult to cross reference two separate accounts without a printout – because of the way that the files are kept within the program itself. Of course, if you are only tracking one set of finances that is no problem; but what if you want to compare your present situation with that of the same time last year? You can, as we've seen, keep two accounts on one disc, yes, but there does not seem to be a way of having them both open at the same time.

And there is no 'formula' option – you can't tell the computer that you are going to get 8.37% added to certain capital at some point. You'll have to work that one out yourself.

Finally, there is no 'date sort' facility – if you do wish to keep your accounts in date order you will have to 'insert' any earlier-dated entries at the appropriate points, and as the manual explains, there are limits to that.

In its defence, of course, the program's creators would say that it never promised to do these things, and they would be quite right. What it does do is give a very simple and fool-proof way of keeping a record of the household accounts (or possibly, small business accounts), providing no more than is asked of it in that context.

If you want more than that, you'll probably have to pay more. And if you pay more, don't forget to include it in the budget.

## Where are Codex?

Budget Accounts is available from Codex Software at 8 Chestnut Grove, Ealing, London W5 4JT (081 840 0760). Make sure that you state the model of PCW that you own when you are ordering. If you do not want to plunge straight in and buy the full-blown version of the program, a 'full working demonstration disc' is available for £2.50.

## Budget Accounts

### Pluses

- ▲ Cheap
- ▲ Easy to use
- ▲ Gives overall picture of finances
- ▲ Provides printout option

### Minuses

- ▼ Limited in its scope
- ▼ Manual's large print makes it difficult to scan through quickly

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Flipper 3 and Foreword both require at least 512K of memory: to use the programs together, or with non-legal CP/M programs like Mini Office and MicroDesign II, extra memory is essential. Both programs support current versions of Locoscript 2 - v2.16 or later - and all versions of CP/M. Hard drives, non-standard disk formats and foreign-language keyboards may cause problems - please check before ordering.

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# Going Public

*Releasing a new software product is not always a bed of roses. Experienced entrepreneur Dave Langford investigates*

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Having entered the shallows of commercial software in a struggling two-man partnership, growing over the years to a struggling limited company with fewer than three employees, I know roughly how it works. None of what follows is intended to be depressing.

## The initial splash

The world must hear about the amazing product we'll call SuperProg. (Silly capital letters in unlikely locations are the essence of software street credibility, says pundit LangForD.) This means advertising in magazines, and not just once: too many floating readers buy the odd copy and pick the month you tried to save money. Your eyes will water when you hear what ad space costs, but this may be negotiable. Some magazines will

typeset your ad to order, which could be useful if you lack a desktop publishing kit and are not a whiz with Letraset. On the other hand, in 1991 everyone knows someone with access to high-quality DTP — don't you? If the quality isn't too high, a good ploy is to produce copy at double or triple size: photo-reduction will help fine up those ragged lines.

It is traditional to send out review copies of software. It is also traditional for magazines to be short of space just then, but you never know.... worth a try.

## Books and discs

Before this, and in readiness for the immense rush of orders, you need to produce a SuperProg manual. Even if the software is self-explanatory, most people like the reassurance of clear, literate and professional-looking instructions. Of course you'll have no trouble with the first two criteria. Tip: borrow someone who knows nothing about your software, and see how he or she makes out with the draft manual.

"It says I should exit from the widget menu. How?" "Press EXIT, of course." "You don't say so." "But isn't that obvious?" "No."

Another tip: while the manual need not be boring, no one will praise you for filling it with naff jokes. Imagine if you had to suffer the Japanese sense of humour every time you puzzled over the VCR manual. (Some people suspect that this is in fact the case.)

Modern technology smiles on small print runs. A high street print shop can whiz off just 20, 50 or 100 photocopies of the book, quite possibly with automatic collation thrown in. In the not-so-distant days of photolitho, it was tempting to order too many copies since the unit cost dropped so rapidly after the savage expense of setting up. Nowadays, litho starts getting competitive at around 400-500 copies. Always ask first.

Or perhaps you have access to a photocopier. Beware of over-straining small desktop models, or of relying on anything but hefty commercial copiers for large-volume printing on both sides of the paper.

How to bind the books? "Traditional" American 3-hole ring binders are awkward-sized and expensive both to buy and to post. Over the years we've used A4 folded and centre-stitched into A5 booklets; then two-hole-punched paper in flat plastic binders; and finally a "perfect binding" system. Here you drop the pages into prefabricated jackets with a strip of glue along the spine: a heater melts the glue and when it sets it's a book. (Plug: Heyden "Bind-It", Spectrum House, Hillview Road, London, NW4 2JQ.) Spiral binding is now cheap, I hear.

Discs are bothersome. The PCW 3" size is more expensive and less discounted than any other; you can get some reduction by buying hundreds, but might as well go for the best mail-order price you can find.

Should you register for VAT? Pro: you pay VAT on nearly all your supplies

(manuals might be an exception if the printers accept that they are VAT-free "finished books" or "newsletters") and would be able to reclaim this — also on the relevant percentage of your phone bill, of which more below. Con: you will have to charge VAT. Thus if you reckon that £20 is the least gross return you can bear to rake in from each package, you must add 17.5% and advertise it at £23.50, doing the books and paying all the odd £3.50s to Customs & Excise each quarter.

Should you form a partnership to market SuperProg? Pro: you share the work and responsibility. Con: tax inspectors are legendarily suspicious of partnerships, and your dealings will need to be sanctified by paying an accountant. (Well, that's what *our* accountant told us. Virtually all accountancy firms are partnerships, so they should know.)

How about becoming a limited company? Pro: the very smallest companies are often formed as a kind of insurance. Suppose your product SuperProg turns out to be the trademark of some US outfit, and they sue for the traditional million dollars. No matter how you grovel your way out of this, there's a chance of an unfunny legal bill which might cost you your house (say). In this remote emergency, liability would be confined to company assets and you at least wouldn't go down the hole.

Con: in exchange for this legal protection, you must pay annual company fees, submit annual reports to Companies House, pay your accountant more as official auditor, and run your business along particular lines (for example, no more dipping into the profits whenever there are some; you need to put yourself and co-directors on a salary, and deduct tax via PAYE.

## Your number's up

Think carefully: will you publish your phone number? If not — and especially if SuperProg has a genuine or apparent "rival product" with a contact number, you lose sales dramatically.

If you publish it, are you in all day every day? Better invest in an answering machine. Want to use your phone for social purposes in the evening? A separate line and an answering machine. Do you think that the phone number is for enquiries only and that software problems could be handled by mail? The people out there think differently. Maybe a separate line and a fax machine, to keep things impersonal — but not everyone uses fax and you lose sales.

And to give technical support, you must learn tact. An expert gave me this example:

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# Super Surgery

*SuperCalc has never been the most comprehensible of spreadsheets – until now. We show you how to get to grips with this popular package*

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**W**ith the possible exception of the family installed at Buckingham Palace, almost every household up and down the country worries about paying bills.

There is always the threat of that month when the phone, gas and electricity bills need paying, when the dog needs a vet and the washing machine a mechanic. And it's Christmas. The monthly pay-packet will not stand the expense, and the bank manager (or your creditors) will not keep quiet.

What you need is organising. In the bad old days, you would have had to do this on paper. But with your PCW, the paper can be dispensed with.



The SuperCalc spreadsheet can impose an order on to your financial chaos

In conjunction with a spreadsheet program, you can give the PCW details of all the bills you foresee paying in each month of the following year; it will then

calculate the amount of expenditure involved. Against this, you can experiment with various fixed (or floating) monthly payments that will spread the cost over the whole year.

Once established, it will mean that the hour or so put in at the end of each month scribbling hieroglyphics on the back of junk mail envelopes will be compressed into minutes.

A sheet set up for year one can be used as the basis for establishing the budget for the next year, and so on. The spreadsheet will also give you a perfect print out of your financial intentions – more than enough to convince the most sceptical of bank managers!

## STEP 1: HOW SUPERCALC WORKS

```
SuperCalc2  AnswerScreen  Slash Commands:
R[ange]----- Sorts cells in ascending or descending order.
B[lack]----- Removes (empties) contents of cells.
C[opy]----- Duplicates contents and display format of cells.
D[elete]----- Erases entire rows or columns.
E[dit]----- Allows editing of cell contents.
F[ormat]----- Sets display format at Entry, Row, Column, or Global levels.
G[lobal]----- Changes global display or calculation options.
I[nsert]----- Adds empty rows or columns.
L[oad]----- Reads spreadsheet (or portion) from disk into the workspace.
M[ove]----- Inserts existing rows or columns at new positions.
P[rint]----- Sends display or cell contents to printer, screen or disk.
P[rotect]----- Prevents future alteration of cells.
Q[uit]----- Ends the SuperCalc2 program.
R[eplicate]----- Reproduces contents of partial rows or columns.
S[ave]----- Stores the current spreadsheet on disk.
T[itle]----- Locks upper rows or left-hand columns from scrolling.
U[nprotect]----- Allows alteration of protected cells.
W[indow]----- Splits the screen display.
X[ecute]----- Accepts commands and data from an .XOI file.
Z[ap]----- Erases spreadsheet and format settings from workspace.
```

The command "? " gives a list of all the commands available while using SuperCalc 2

SuperCalc 2 is easy to use and can manage almost any financial task. The only problem is that it can be difficult to penetrate for the beginner.

Unlike some of the tailor-made budget control systems on the market,

you have to set each sheet up from scratch. This should not be too onerous a task once the principles of spreadsheeting are understood.

SuperCalc works as follows. It is laid out as a grid with rows and columns. Each row is numbered and each column has an alphabetic identifier. In SuperCalc 2 there are something like 254 rows and 988 columns (from A to BK). The point at which each row and column intersect is known as a cell. The cell in the top left of the screen is known as A1 (Column A, Row 1).

Each cell may contain numbers, letters or a formula (a formula is a bit of arithmetic for the computer to carry out). These have to be entered into the sheet using prompt lines at the bottom of the SuperCalc screen. The prompt lines

contain information about which cell is being updated, and the information being put into it.

The prompt lines will also accept commands. There are a number of commands, each consisting of a single letter preceded by a '/'. Type /? at the prompt to see them listed on screen. We will use several of these commands to construct our sheet.

The only thing that will take some getting used to is SuperCalc's way of dealing with command editing. If you type something in and get it wrong, you will find the [DEL] keys are disabled – you will have to use the cursor keys to position the cursor, and then type over the mistake. Alternatively, you could use [ALT][C], which will clear the command line.

## STEP 2: ALLOCATING THE CELLS

It is important to make clear what each cell on the finished grid actually refers to, and so we must add labels.

The cells in the left hand column (column A), starting from Row 3, are used to list the bills that have to be paid. The top row, starting with the second cell from the left (Cell B1) and running across the screen, are used for months of the year. You can start anywhere within the year – the example shown here runs from April to March.

In addition we will make the last column (column N) contain the totals of all the cells in each row. This enables the user to see how big any single bill item has become during the year.

Beneath the bill headings there are a few rows containing the total to be paid

out each month (Row 18), and some other figures which require simple formulaic calculations. The figures in these cells – and any others which are affected – will be automatically adjusted every time a new figure is entered or an old one is altered.

Having now decided how to co-ordinate the sheet, we must get down to work and set it up. Load the spreadsheet according to the instructions that came with the software.

When you enter the spreadsheet you will see the column and row indicators at the edge of the screen. The first thing to do is identify each cell in our grid.

This means labelling the left column of the grid, and the top row. The first column will need to be wide enough for

text to be entered to identify the bill categories. This is done by moving the cursor to column A then pressing the keys /F C [RETURN] 20 [RETURN].

To interpret: /F invokes the FORMAT function. C tells the function that a Column is to be formatted. Pressing [RETURN] will set the column as the one in which the cursor is currently positioned. The number tells the format function how many characters' width the column should be. The final [RETURN] fixes the change.

To make the sheet look even more professional, add the command sequence /F G TR, which will format all the text on the sheet to be Right Justified. One more format command worth making at this point is /F G \$, which will give all

## On balance

When you are studying step 4, you may be wondering what happens if there is extra expenditure during the year. Don't worry; that too can go into the SuperCalc equation. We have set up the sheet leaving several rows free for any extra categories that need to be created; you can add further rows using the /I command. This updates all your formulae to take account of the insertion.



the numeric output to 2 decimal places – which means that you won't get obscure readings like £2.4593!

With the headings entered down column A, starting at row 3, and the months placed in cells A1 to M1, we can enter the amounts estimated for each bill in the cells.

Entering a particular number is simple – position the cursor in the correct position using the arrow keys (you will see the cell indicator towards the bottom left hand side of the screen keeping a

track of the cell you are currently in) and enter the number using the normal number keys. When the full number has been entered, press [RETURN], and the whole spreadsheet will be updated automatically.

Armed with this information, we can then go on to enter all the numeric details for the year – or whatever period of time you have decided to document.

To add data, simply make sure that the cursor is in the correct cell, and type the number in

	Apr	May	Jun	Jul	Aug	Sep	Oct
Brought forward Birthdays	159.66						15.00
Christmas							
Car maintenance			100.00				
Electricity				41.00			
Gas					75.00		
Holidays						700.00	
Maintenance		85.00					57.34
Water Rate	69.00						
Monthly total	227.66	85.00	100.00	41.00	75.00	700.00	72.34
Paid in	127.00	127.00	127.00	127.00	127.00	127.00	127.00
Monthly difference	-109.34	-42.00	-27.00	-86.00	-52.00	573.00	-54.66
Net balance	-109.34	-42.00	-27.00	-86.00	-52.00	573.00	-54.66
Interest							
Gross balance	-109.34	-42.00	-27.00	-86.00	-52.00	573.00	-54.66

### STEP 3: PREPARING SUPERCALC FOR CALCULATIONS

The nice thing about spreadsheets is that you never have to calculate anything yourself. You enter formulae which the computer then uses to make all the necessary calculations – unerringly.

In our case, the majority of calculations are simple ones. For instance, the monthly difference (which for April will go into cell B20) is simply a matter of calculating the difference between what is paid in (row 19) and what is paid out (row 18). In maths-speak that would be B19-B18, which is also the formula that SuperCalc requires.

To enter the formula, position the cursor over B20 and simply type in **B19-B18** [RETURN]. Nothing will happen immediately, but if you were to enter a couple of numbers in B19 and B18 you will see the formula at work.

The next row down (row 21) contains the net balance. In the first month (Column B) this will be simply the difference between what has been paid in and what has been paid out for the month of April – (B20). We'll deal with the entry for subsequent months later on in the article.

The calculation of interest requires a rather more complex formula to be entered in B22. It includes an IF statement, because if the account is in the black, the interest added is less than when it is in the red. The formula looks like this:

**IF(B21<0,(B21/100\*19)/12,(B21/100\*9)/12)**

Which the computer will read as: If cell B21 is less than 0, then divide it by 100 and multiply the result by 19 and divide that result by 12; otherwise divide B21 by 100 then multiply it by 9 and divide the result by 12.

This calculates interest on overdraft at one twelfth of 19 percent and interest on credit at one twelfth 9 percent. Obviously, if your interest rates are different to this, you can alter the formula to suit the new arrangement.

Add this to the sheet in cell B22. Be careful how you copy it in – this is a long and complex calculation. Again, if you fill B21 with something (perhaps B20, to show how that works), you will see B22 being updated. B23 is the simple addition of B21+B22, and is

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Brought forward Birthdays	159.66												15.00	
Christmas														
Car maintenance			100.00											
Electricity				41.00										
Gas					75.00									
Holidays						700.00								
Maintenance		85.00											57.34	
Water Rate	69.00													
Monthly total	227.66	85.00	100.00	41.00	75.00	700.00	72.34							
Paid in	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00
Monthly difference	-109.34	-42.00	-27.00	-86.00	-52.00	573.00	-54.66							
Net balance	-109.34	-42.00	-27.00	-86.00	-52.00	573.00	-54.66							
Interest														
Gross balance	-109.34	-42.00	-27.00	-86.00	-52.00	573.00	-54.66							

Formulae are simply typed into the correct cell. This is the first half of the year...

entered as such. The only cell remaining to be filled is B18, which is the monthly total of bills. This is clearly a simple addition of B2+B3+...B15. But that is a cumbersome formula. It would be much better to be able to stipulate: "add everything from B3 to B16 inclusive."

The SuperCalc way of saying this is: **SUM(B3:16)**. Add that to the sheet (it will overwrite anything that was already there) and you will have completed column B of your sheet.

### STEP 4: DUPLICATING THE INFORMATION

All these formulae now need to be extended throughout the year. SuperCalc has a 'replicate' function that allows you to do duplicate data automatically.

Let us first replicate row 18. Put your cursor over the first formula in that row (B18); now enter the command **/R**. Hit [RETURN] to indicate that B18 is the cell you want to replicate, and then enter **C18:M18** as the range you want to replicate to. A series of noughts will appear across the screen.

However, if you move your cursor along this row you will see in the window at the bottom that the cells are full of formulae exactly like those in B18, except that the column letters have changed, so that they will perform their calculations on the correct data.

Do the same with the formulae in B20, B22 and B23. The only formula gap then left to be filled is that in row 21, the net balance. The net balance of any given month will be the Gross Balance from the previous month, plus the current month's Monthly Difference. For our May column, that will be B23+C20 (for the first month, it is simply that

month's monthly difference, ie B20). The final programming task will be to add all the totals up at the end of the year. These will appear in row N, and for the bills (rows 3 to 16) will take the form **SUM(Brow:Mrow)**. So for row 3 the formula will be **SUM(B3:M3)**, which is then replicated into the range **N4:N16**.

Next comes N18, which will be the annual total of Monthly Totals, **SUM(B18:M18)**. If you like, you can cross-check this by filling N17 with the **SUM(N3:N16)**; a little thought will show that these two totals should be the same. Setting such cross-checks is good spreadsheeting practice.

The total of money 'paid in' to the bank needs totting up with the formula **SUM(B19:M19)** in cell N19; and if you want to frighten yourself, adding **SUM(B22:M22)** will show the balance of interest paid and gained over the year. And finally, you can add a label for the end of year balance. This is, of course, simply the Gross balance at the end of the final month of your year – in this case, cell M23. Point to this by putting the text "<EOY Balance in N23.

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Brought forward Birthdays	159.66												15.00	
Christmas														
Car maintenance			100.00											
Electricity				41.00										
Gas					75.00									
Holidays						700.00								
Maintenance		85.00											57.34	
Water Rate	69.00													
Monthly total	227.66	85.00	100.00	41.00	75.00	700.00	72.34							
Paid in	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00	127.00
Monthly difference	-109.34	-42.00	-27.00	-86.00	-52.00	573.00	-54.66							
Net balance	-109.34	-42.00	-27.00	-86.00	-52.00	573.00	-54.66							
Interest														
Gross balance	-109.34	-42.00	-27.00	-86.00	-52.00	573.00	-54.66							

...and this is the second half. Don't forget that you can easily duplicate cells with "/R"

Our sheet is now almost complete. But one thing we need to do, of course, is to 'pay in' some money. This goes into row 19, and you can play around with it as much as you like. Don't forget that if you want to try spreading payments throughout the year the **/Replicate** option will make life easier. If you get some unexpected income in the middle of the year then you can add that in; it may mean that you will be able to reduce your payments later on in the year.



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Panasonic KXP1080-83	F	4.00	3.80	3.60
1090-92, 1124, 1180-90	F	6.90	6.56	5.21
Panasonic KXP1524-40	F	3.44	3.27	3.10
Seikosha SP1200	F	3.44	3.27	3.10
Star LC10	F	3.44	3.08	2.92
Star LC200	F	3.44	3.08	2.92
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3 1/2 x 1 15/16	8.18	6.00	5.44	
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# Icon Experience

*Using icons within your work in MicroDesign can unleash an extra source of creative ingenuity. This month, Alec Rae shows you how to use existing icons - and create some of your very own!*

One of the more unusual features of MicroDesign is its Icons. No. We are not talking artefacts from the Greek Orthodox church here. 'Icon' is a really important computer word meaning 'little pictures'.

The Icon is a small graphic that you can place anywhere on a page with the minimum of fuss. Just pick the icon you want from the choice at the bottom of the screen in MicroDesign's Design section. Press [I] (for Icon), place the picture where you want it and press [RETURN] - a task which will take you anything up to 10 seconds to perform.

## Small isn't beautiful

The only disadvantage here is that the icons are about a quarter of an inch square - often just too small to be of any real use. You can use them at double size although you have to use this feature carefully. Because you are starting from such a small image the enlarged icon can look very ragged with a severe 'stepping' effect on any curved edges.

Strangely enough there is even a feature to allow you to use icons at half size although, it must be admitted, this is getting a bit too small to be of any real practical use.

Creative Technology have worked hard to give you a good choice of icons on disc. Admittedly it takes a bit of imagination to work out where to use a picture of a little man with a pointy head and horns or a bumble bee in a modern business context. But there is a good selection of symbols for specialist subjects like electronics or hydraulics and there is a wealth of icons just waiting to have a use found for them.

For the more musically minded there

## VARIETY IS...

There are other uses for the Icons box. As well as icons the LoadIcon feature will give you a wide range of patterns. So when you are using the [F]lood or [P]aint with the pattern option chosen ([EXTRA] and [UNIT]) the pattern used to flood or paint is the one you have highlighted in the Bottom Window.

Again there is a wide range of patterns to choose from. As well as the ones available on the BOOT icon selection (the one that is loaded automatically when you start up MicroDesign 2) there are Icon files covering patterns, shades and textures. What the difference is is not entirely obvious but it does mean there is a good choice.

are also music symbols that would allow you to write down music with notes, clefs, bar ends and so on. Using the [L]ine drawing command and these icons you could write most music and if you got stuck you can simply draw any of the thousand or so more obscure musical symbols not covered by the musical icon selection by hand.

## Residential home

All these icon selections are all contained on files on the MicroDesign 2 disc, helpfully marked ICONS (you could almost have guessed that yourself, couldn't you?).

These can be loaded at any time using the LoadIcon command. To do this press [F5], pick the filename you want to try - [RELAY] and the cursor keys or click on it with the mouse - and press

[RETURN].

There are three sets of icons loaded in memory at any time and you can pass from one set to another by press [EXTRA] and [F1]. Some of the icon files replace all three sets and others only replace the set you choose to replace so that you can build up a mixture of the icon sets you need.

## Quick on the draw

But perhaps the most interesting feature of the Icon set up is that you actually can draw your own icons and save them to file to be loaded whenever you need them. This could mean simply replacing a few icons that you are unlikely to use (the man with the pointy head and horns seems a reasonable candidate) or it could mean replacing a whole set for a really complex task.

This is carried out in the section found in the main menu called, you guessed it, Icons. This is an environment remarkably like the Zoom feature found in the design section.

You can either start from scratch or you can take one of the icons already on file and adapt it (for instance you could give the pointy-headed man a moustache and beard).

Then you can save the icon to file either over-writing the icon you have amended or any other one that you won't be needing again.

The real challenge, of course, is finding a symbol of that size that you will be using often enough to justify the five minutes you would take to design it.

Obviously for design functions it can be ideal. But there are other uses. For instance designing a flow chart using MicroDesign 2 would be sheer simplicity. The very flexible line and box drawing abilities mean that the most complex charts could be tackled.

And, if you have simple icons representing members or staff or departments loaded into MicroDesign (perhaps no more than initials or a department number) along with simple symbols you can quickly cram an amazing amount of information into a remarkably small amount of space in an impressive looking format.

MicroDesign 2 could even be used to write really effective minutes from a meeting. Anyone minutened to carry out a task could easily pick out their duties by the use of graphics. Now that is impressive.

## CIRCUIT SHORTCUTS

There is a historical reason why such a sophisticated Icons section is included in MicroDesign 2.

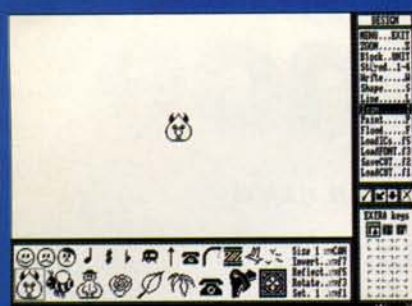
When MicroDesign 1 (the version for the Amstrad CPC machines) was first developed, it was not so much as a desk top publishing program as a tool to design and print electronic diagrams.

All this clever programming was carried over to the more sophisticated MicroDesign 2. Anyone wanting to use MicroDesign 2 to do any electrical/electronic circuits will realise immediately how useful it is for this

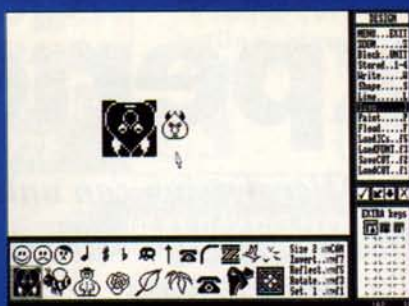
purpose. Using the comprehensive set of electronic and electrical symbols and the line drawing facilities you can very easily knock out any circuits you want.

Building on a good idea the designers have also added symbols to cover hydraulics and map symbols (OSSYMBOL.MDI). This is obviously perfect if you are interested in electronics, hydraulics or cartography (that's what clever people, like us, call map drawing). If you are interested in anything else it simply means you have to draw you own icons.

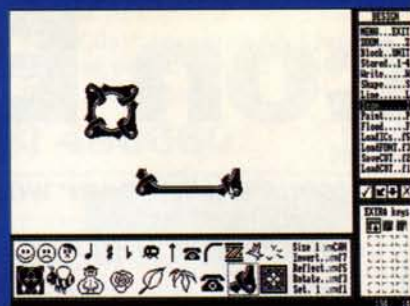




1 Locating the supplied icons



2 Modifying icon size



3 Producing borders

**1** The first thing to do is to make sure we know how to handle the icons we already have on file. Load up MicroDesign 2 and go into the Design section (press [D]), position the box where you want to work with the cursor keys or the mouse and then press [RETURN].

At the bottom of the screen you should see Set 1 of the currently available icon set - the BOOT set, as those lovable programmers at Creative Technology decided to call it.

Press [RELAY] and you can use the cursor keys to move the highlight box around the various icons. Pressing [RELAY] again brings you to back to the normal position.

Then just press [I] and where the cursor used to be you will see a flashing version of the icon.

Place it wherever you want with cursor keys or a mouse and press [RETURN] and it stays there.

**2** But this is not the end of its versatility. With [EXTRA] and [CAN] you can change the size of the image - either to double size or half size. You'll be able to tell whether it is practical to do so by experimentation.

[EXTRA] and [f7] inverts the image - in other words, instead of being black on white it will be white on black - quite an effective way of making an icon stand out clearly on a page.

[EXTRA] and [f5] reflects the icon on its Y axis - which is really a fancy way of saying that it gives you a mirror image of the icon. [EXTRA] and [f3] rotates the icon through 90 degrees.

Of course if you want it to rotate the image through 180 or 270 degrees just keep pressing [EXTRA] and [f3].

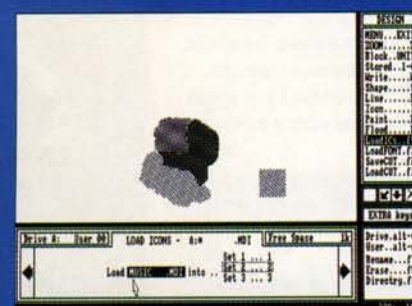
Here we see the pointy-headed man in rotated, inverted and double size. Note the problem with stepping when you use an icon at double size.

**3** These commands are particularly useful for the border and corner icons. These can be used to provide really effective borders or frames for text or pictures. There is an example of one of these in the bottom row (second from the right) - a fancy corner icon.

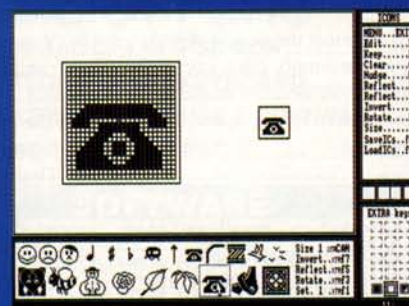
Just place the first one as normal ([I] and [RETURN]). Then rotate the icon ([EXTRA] and [f3]) and press [I] again. Then carefully line this up with the first icon using the cursor keys or a mouse and press [RETURN]. Rotate the icon for the third and fourth corners, sliding them into place. Now you have a complete frame for a small piece of text or picture.

With some icon sets you can also add in border units between the corner units to make a bigger frame.

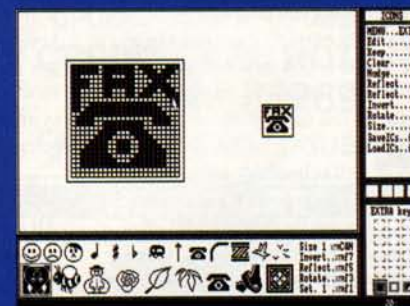
Or else, as in the lower example here, you could mock up side units for the frame, any length you want, using the [L]ine and the [F]ill commands.



4 Altering patterns



5 Creating your own designs



6 Adding text

**4** Press [EXTRA] and [f1] to change to a set of patterns. [P]aint or [F]lood used with the Pattern option chosen ([EXTRA] and [UNIT]) will allow you to paint or fill any contained space with the pattern or texture chosen. Press the keys again and you will get a selection of electrical symbols.

But even this isn't the full choice. If you press [f5] you get Loadcon - the command to load other icon files into memory. Making sure that you are logged on to the right drive ([ALT] and [A], for A drive), put the MicroDesign Icons and Areas disc in the correct disc drive and press [RETURN]. The list of files should give you a reasonable clue as to what sort of icons there are in them.

Some are only one set. These will ask you which of the existing sets on memory you want to replace. Use the cursor keys to highlight the set you use least.

**5** But the real fun of the Icons is when you start designing your own.

To do this you go into the quite suitably named Icons section. Press [EXIT] and [I] and you are there.

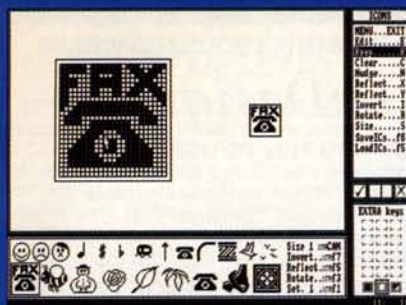
At the bottom of the screen you will see the same icon set as you had chosen in the Design section. Just as in Design you can choose the icon you want to work on by pressing [RELAY] and moving the highlight box about.

In Set 1 of the boot disc there is a useful telephone icon that can be used effectively alongside telephone numbers in all kinds of literature. But, as many companies also have a fax number as well it would be useful to have a fax icon. Choose the phone icon and press [E] for Edit and [RETURN].

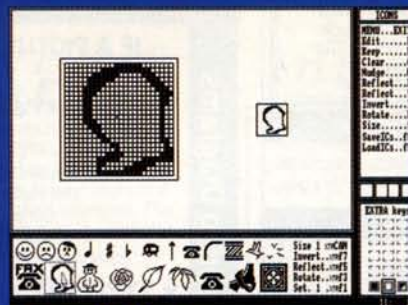
The chosen icon loads into the large, blown up, Zoom type box and the small same size box in the main screen.

**6** Then add the word FAX above the telephone symbol, to signify that the telephone number alongside is a fax line. This is carried out just like when using Zoom in the Design Section. You can switch individual pixels on and off either using the cursor keys and the Space Bar or the mouse and the left hand button. You can switch a pixel on by choosing the black box in the EXTRA menu ([EXTRA] and [RELAY]). Then every pixel you click on will go black. Choose the white box ([EXTRA] and the downward cursor key) and pixels are switched off. If you choose the black/white option you are in EXOR mode where any pixel you click on will change to the opposite of what it is at present. Don't be too ambitious. The letter A may normally have two sloping sides but when working in a limited space with pixels make the letters as square and as simple as possible.

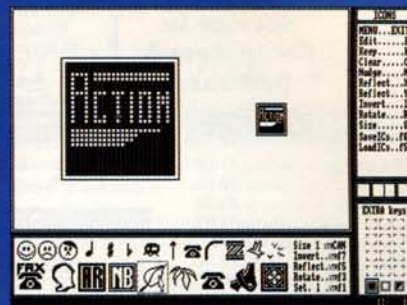




7 Saving your icon



8 Combining icons



9 Other uses for icons

**7** Once you are content with your new design you can [K]eep it. But before you do it, move the highlight box in the Bottom window to an icon you don't want to keep. Obviously you will want to keep the telephone icon in the same set (so that you can put telephone numbers and fax numbers on the same page easily).

So move the box ([RELAY] and the cursor keys) to one you won't use again. On this occasion the little pointy-headed man made the ultimate sacrifice. Press [K] and the new icon replaces the old one.

You can then save the whole thing permanently. Press [F6] (Savelcon), choose whether to save one or all sets and pick a name for your new file. Remember to call it by a different name from the existing file or you may overwrite it and never again be able to get the pointy headed man icon back again. Choose a different name, press [RETURN] and the changes are saved to disc.

**8** Even though you are working in a limited space you can still get some impressive results by combining various icons together. For instance you could perhaps break up your company logo or club badge into two or four icons and then just place them carefully on screen to produce the full effect.

In the example here we are trying to produce a logo for a company called Butterfly Software. Here it is best to clear the working area [C] and start with a blank sheet. The principle is to produce an image of half a butterfly.

The advantage of a logo like a butterfly is that it is symmetrical.

To produce the other side of the butterfly all you need to do is load the icon, press [F5] to give a mirror image, press [I] again and line the reflected icon up with the first one.

So, you in effect get a double sized image from the one icon.

**9** But, even if you are not artistic, you can still make effective use of icons by setting up initials of the main people in your organisation for use in meeting minutes, flow charts or those command chain charts.

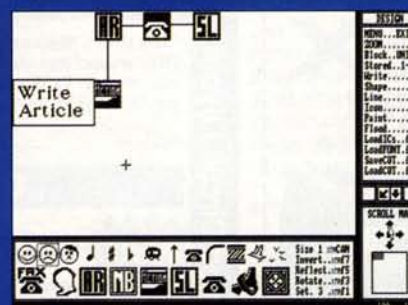
Again, remember to clear the working area and then draw a black border round the square one or two pixels deep. In the remaining space write the initials you want as big as you can.

Do try to keep the lines as straight as possible. Curved lines are slow and difficult to achieve and don't really look all that impressive. Once you have them all on file you can also add key words - NB or Action. You could create simple symbols for meetings to be arranged or telephone calls to be made.

To make the key words stand out from the initials you could invert the colour ([EXTRA] and [F7]) to make them stand out even more.



10 Combining the image



11 Text-free icons



12 Extra functions

**10** Then you simply mix the icons and the text. You can easily do it as you go along. Flipping from [W]rite to [I]cons only takes seconds. Or you could write your minutes in your favourite word processor, save the file as ASCII and then load it into MicroDesign as normal through the text editor.

Try to make sure that you leave a broad margin down the left hand side of the page. One quite simple way of doing this is by drawing a line down the page, using [L]ine and then setting the text on the right hand side of it. Then you can simply place the icons against the relevant text in one exercise.

This way anyone can easily pick out where they are mentioned and (if you have a suitable icon) easily find out what they are supposed to be doing. You must admit that would be a remarkable achievement for any set of minutes.

**11** Or you could attempt to do away with words as much as possible and create flow-charts using icons. This could be used effectively to chart a chain of command or to display, in graphic form, the series of events involved in a complicated task. These charts would be particularly useful for training new staff or for times when you change systems.

Not everything can be explained in graphic form but for those occasions you can add small items of text in boxes - using the [S]hapes and [R]ectangle command. By using the [L]ine drawing feature you can chart the sequence of events and the variety of possible action under any circumstances in a form far easier to grasp.

This does take a bit of time. But it is flexible (you can move items about the screen using [B]lock and Copy) and it is impressive when done properly.

**12** Then when you have finished doing all these important serious things, why not load up Misc2 - one of the MDI icon files - and enjoy a few hours of harmless fun drawing yourself a picture completely without needing any artistic ability whatsoever.

There are a variety of little pictures on offer here, from little people and trees to fish and seaweed. Of course, not every need is catered for, but the selection is fairly comprehensive. In fact, just studying these icons and how they are made up, shows just how much you can actually do in a very limited space.

By adjusting the size and the positioning of the various icons you can create little scenes until your heart's content. Then finish off the last details using [P]aint, print it out, frame it and rush it to your nearest art dealer. It might be the best thing you'll ever produce!





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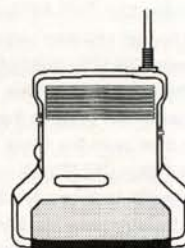
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ProScan..... (£144.64 + VAT) = **£169.95**

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## NEW Flipper 3 NEW

This sophisticated, User Friendly (menu driven) program is compatible with the SCA range of Hard Disk Drives and RamPacs and, given adequate memory, can flip between UP TO EIGHT ENVIRONMENTS. Flipper 3 requires at least 512K of memory. A RamPac is required when used with MicroDesign 2 or Mini Office..... (£29.75 + VAT) = **£34.95**

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An essential writer's tool, Foreword lets you turn vague thoughts into clear words - fast. Type in your ideas, shuffle them around and flesh them out with ease. Foreword co-exists with either CP/M (legal) or LocoScript 2 (v 2.16 onwards), hiding in the background and then "popping up" when needed. 512K of memory is required, Flipper 2, MicroDesign 2 and Mini Office require a RamPac. Foreword is not compatible with some peripherals - please check before ordering.

Foreword costs..... (£38.26 + VAT) = **£44.95**

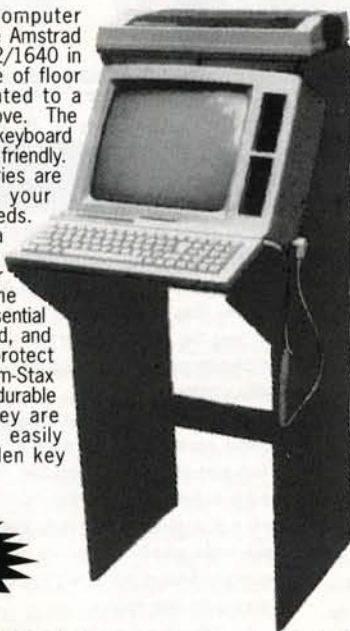
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### AT LAST! MASSIVE STORAGE AT A MINIMAL PRICE!

**Affordable, simple to install, simple to use, with superfast benefits.**  
The SCA Vortex Hard Disk Drive is available in four capacities, 20MB, 30MB, 40MB and 60MB. The 30MB, 40MB and 60MB versions include a free copy of LocoFile and LocoScript 2. These free-standing Hard Disk Drives come in a smart, compact, Amstrad complementary case and are mains powered. The Interface simply plugs onto the Expansion slot on the back of your computer. It has a through connector to allow the stacking of other peripherals. Optionally, at extra cost, the Interface can incorporate a 512K RamPac.

The SCA Vortex Hard Disk Drives have a fast access time of 30ms. They are supplied already formatted and partitioned into four equal areas, namely Drives C, D, E & F but this is user variable. There are two LEDs, one for Power On and one for Drive Activity.

"Comparing prices, the Vortex (SCA) disk is by far the front runner"... "A hard disk begins as a novelty and ends up as a necessity. The savings in time and energy can pay untold dividends"... "could finally bring a whole new way of working within your reach." Range of features 3/5, ease of use 4/5, installation 5/5, value for money 5/5. Total 17/20. **"8000 Plus"**

**20 Megabyte Hard Disk Drive with Interface**..... (£299 + VAT) = **£351.33**  
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### Compatible with new Flipper 3

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**RamPac 512K Memory Expansion**..... (£89 + VAT) = **£104.57**

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An AT Style, Industry Standard Keyboard for any PCW, simply plugs into the port used by the original keyboard - there is nothing else to do!

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Number of keys: 102 instead of 85  
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Dimensions: Width 470mm, Depth 180mm, Height 40mm.

**PCW 102 Replacement Keyboard**..... (£58.72 + VAT) = **£69.00**

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from  
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The new drive brings a breath of fresh air to the PCW scene...when you have finished it looks great...and we can honestly say, it is far easier than you think." (PCW 8256 - July 1991).

Yes, now you really can fit a 3½" Drive B into the PCW 8256 and the PCW 9512 with our remarkably straightforward DIY Kit! No soldering, no special skills required, you only supply commonsense and a cross-head screwdriver!

**THINK OF THE ADVANTAGES.** ★ Professional Quality Drive ★ Costs less than a 3" drive ★ Uses cheaper, readily available disks ★ Works just like a standard 3" Drive B ★ Upwardly compatible with the new PCW with 3½" disk drive - coming soon! ★ Transfer data to other 3½" drive computers ★ No obsolescent technology; disks and replacement drives will be available for years to come. NB Not compatible with Isenstein Ramdrive.

Our high quality (TEAC FD235F) 1 megaByte Drive B (720K formatted, 706K under LocoScript) is fully compatible with your existing PCW software. No extra software is required. Data Transfer Software is available; see below. Simple, comprehensive Installation Instructions for DIY.

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# Score Sheet

*Tony Hart takes the PCW and Mini Office into the realms of sports performance and analysis, and shows how a spreadsheet can be used to monitor performance during a season's play*

**K**een sportspeople often keep a record of sports results over a period of time, whether for tennis, soccer, cricket or golf. However, what's just as important, but often neglected, is to keep a record of performance as well. For example, the

local soccer team might regularly win matches and keep a record of the scores but do they keep a record of how many crosses were fed into the box from the wings? How many times the ball was won/lost in midfield? How many passes were mis-directed to the opposition?

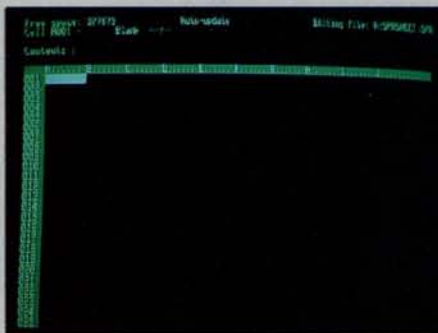
This kind of performance record and analysis will indicate areas of strength and weakness – areas where we should focus training and practice in order to improve our game.

This type of record keeping and analysis is a perfect task for a

## STEP 1: USING MINI OFFICE

Mini Office is an integrated suite of 'Office' software comprising word processor, spreadsheet, graphics, database and communications modules. We are going to use the spreadsheet module to calculate sports performance averages and comparisons, and the graphics module, to provide a visual presentation of the results of the calculations.

A spreadsheet is literally that! A sheet of columns and rows which are spread across a sheet, page or screen. You create a PCW spreadsheet just like you'd create one on paper. First you lay out the columns and rows, then the numbers are entered, and finally the calculations are made. The benefit of using the PCW applies for this final stage – the calculations – like adding up rows or columns, finding average, maximum



The empty spreadsheet, waiting to be adapted to our needs

or minimum values and so on. What would take us minutes, or even hours, to do with a calculator

is done in a few seconds on the PCW. So, now to starting the operation.

Boot up the PCW with the Mini Office disc, and, to load the spreadsheet, type "sheet" at the CP/M A> prompt. This saves time by bypassing the Mini-Office main menu and taking us straight to the spreadsheet menu. Since we're starting with a "clean sheet", move the cursor to "Edit data" and press [ENTER].

The screen will now display an empty spreadsheet with just row numbers down the left of the screen and column letters across the top (see the screenshot).

Setting up a spreadsheet from scratch is done in three easy stages. These are – laying out the sheet on the screen, entering some data – and finally – entering the calculations.

## STEP 2: LAYING OUT THE SHEET – COLUMNS AND ROWS

The headers, or descriptions, for each column and row can be entered by simply typing in the text at each cell location. However, three changes have been made to the default cell layout to enhance the presentation. Firstly the column width for column A has been widened, using the [ALT]/W command, to accommodate the date entries. Secondly the decimal places have been set to zero. Thirdly, the cell justification has been centred (i.e. the number in each cell will be centred within the cell rather than set to the left or the right of the cell). The last two features are set in the "Cell display" menu of the "Alter spreadsheet" function (see the left hand screenshot).

The right hand screenshot shows the spreadsheet layout after the cell display has been set up and the main column and row headers typed in. The columns specify the various values which we're interested in recording, like Fairway, Green, Sand or Putting performance, and the rows simply progress with each game played – defined by date.

Note that for three features of play (Fairways, Greens, and Sand) there are three values – namely, Possibles, Actuals and Cumulative averages. 'Poss' and 'Hit' stand for



On the left is the Cell display menu, where the cell justification and decimal places are set. On the right, the column and row categories await information on results



possible and actual achievement respectively and will be logged during the game and then entered into the spreadsheet. 'cum%' stands for Cumulative average. The cumulative average, which is automatically calculated after each game, provides the average performance figure over all games from the start of the season.

These three values are the main performance indicators.

It will improve spreadsheet presentation if a 'separator' row of hyphens is used to separate the headers from the main spreadsheet and

again from the final performance comparisons. This is accomplished by using the [ALT]/S, text string command, which allows text to be entered and displayed across a number of columns.

The final part of the spreadsheet presentation, prior to setting up the performance calculations, is to display those measures against which you'll measure your own performance.

The bottom part of the sheet displays all the performance results – your own average performance and those against which you'll be measured later on.



spreadsheet, where regular figures are fed in and the spreadsheet does the rest – the hard work – calculating averages and making comparisons – all in a matter of seconds. All that's needed is a PCW, a spreadsheet, half an hour to set it up and a game to monitor. Golf is an ideal sport for recording performance statistics, so we'll take this sport as our example for this short but useful spreadsheet

exercise. When considering their performance, golfers will be interested in four main areas of play over a round of golf (eighteen holes). These are:-  
**Fairways:** How often do they hit the fairway with the tee-shot?  
**Greens:** How often do they hit the greens "in regulation?" i.e. two shots below par for the hole.  
**SandSaves:** How often do they save par

when their approach shot to the green has landed in a sand-bunker?

**Putts:** Having reached a green in regulation, how many putts do they take to get the ball down the hole?

With these specifications in mind, we're about to go ahead and set up the spreadsheet. Remember, you can adapt the procedure for any sport that you choose. So let's get started!

### STEP 3: ENTERING THE DATA AND CALCULATING AVERAGES

Now that the spreadsheet is set up, the results from the games can be entered. This is the easy part – simply move the cursor to the relevant cell and type in the data starting with the date and moving across the spreadsheet from 'fairways' to 'putts'. The screenshot shows the sheet after the first few games. Note that only the 'Possibles' and 'Actuals' (Poss' and 'Hit' on the screen) for the first game, and the comparison data (to be found in any golf monthly) at the bottom of the sheet are shown. We haven't yet entered the formulae which will calculate averages and performances from this static data.

In order to calculate cumulative performances as they are entered after each game, we use two useful features of the spreadsheet calculator. These are the 'SUM'

Date	Fairways			Greens			SandSaves			Putts		
	Poss.	Hit	Count	Poss.	Hit	Count	Poss.	Hit	Count	Poss.	Hit	Count
Jan 10	12	10	10	18	15	15	18	15	15	18	15	15
Jan 11	12	10	10	18	15	15	18	15	15	18	15	15
Jan 12	12	10	10	18	15	15	18	15	15	18	15	15
Jan 13	12	10	10	18	15	15	18	15	15	18	15	15
Jan 14	12	10	10	18	15	15	18	15	15	18	15	15
Jan 15	12	10	10	18	15	15	18	15	15	18	15	15

The sheet with results entered. The next step is to calculate the averages

function, which adds up specified rows or columns and the 'MEAN' function, which automatically calculates the average of a row,

column or matrix. To set up the cumulative averages for Fairways, Greens and Sand we do the following:-

1. Cursor to D5; [ALT/F]; (Enter formula)
2. Enter the formula –  $SUM(I5:C5)/SUM(I5:B5)*100$  – This will calculate the percentage 'hits' against 'possibles'.
3. Make a 'Relative copy' of this cell to cells D6-D17, G5-G17 and J5-J17.

To set up the cumulative averages for Putts:-

1. Cursor to L5
2. Enter the formula  $MEAN(K5:K5)$
3. Make a relative copy to cells L6-L17

These formulae will now automatically calculate all averages as you enter the data for each game. The results will appear on the bottom row.

### STEP 4: COMPARING PERFORMANCE

The Club, PGA and PGA No.1 averages are the standards against which we've chosen to measure the golfing performance. Here the spreadsheet is again useful and can save time. We can now automatically compare our own performance (shown in the left hand screenshot) against each of these values by using the 'RANGE' function of the spreadsheet.

The bottom row of the spreadsheet is where we use the 'RANGE' feature. The text in cell A24 simply shows the values we're using to indicate performance, i.e. 0 = weak, 1 = Fair and 2 = strong performance.

To calculate these we enter the 'RANGE' calculation as follows:-

1. Cursor to cell D17: [ALT]/F
  2. Type  $RANGE(D17,D19,D20,D21)$ ; [ENTER]
- Cell D17 (your performance) will now be

Date	Fairways			Greens			SandSaves			Putts		
	Poss.	Hit	Count	Poss.	Hit	Count	Poss.	Hit	Count	Poss.	Hit	Count
Jan 10	12	10	10	18	15	15	18	15	15	18	15	15
Jan 11	12	10	10	18	15	15	18	15	15	18	15	15
Jan 12	12	10	10	18	15	15	18	15	15	18	15	15
Jan 13	12	10	10	18	15	15	18	15	15	18	15	15
Jan 14	12	10	10	18	15	15	18	15	15	18	15	15
Jan 15	12	10	10	18	15	15	18	15	15	18	15	15
My average	70	70	70	70	70	70	70	70	70	70	70	70

The spreadsheet can now calculate a player's averages...

compared with the other three performance averages. If yours is less than D19 (Club Average) then a zero is returned. If it's less than D20 (PGA Average) then a "1" is returned. If it's less than D21 (PGA No.1) then a 2 is returned.

Date	Fairways			Greens			SandSaves			Putts		
	Poss.	Hit	Count	Poss.	Hit	Count	Poss.	Hit	Count	Poss.	Hit	Count
Jan 10	12	10	10	18	15	15	18	15	15	18	15	15
Jan 11	12	10	10	18	15	15	18	15	15	18	15	15
Jan 12	12	10	10	18	15	15	18	15	15	18	15	15
Jan 13	12	10	10	18	15	15	18	15	15	18	15	15
Jan 14	12	10	10	18	15	15	18	15	15	18	15	15
Jan 15	12	10	10	18	15	15	18	15	15	18	15	15
My average	70	70	70	70	70	70	70	70	70	70	70	70
Club average	70	70	70	70	70	70	70	70	70	70	70	70
PGA average	70	70	70	70	70	70	70	70	70	70	70	70
PGA No.1	70	70	70	70	70	70	70	70	70	70	70	70
My Performance	0	0	0	0	0	0	0	0	0	0	0	0

...and then go on to compare those results with other standards

3. 'Relative copy' cell D24 to cells G24, J24, L24 for the Green, Sand and Putt comparisons. The right hand screenshot shows the performance comparisons calculated after this feature has been added.

### STEP 5: GRAPHICS – BAR-CHARTS, LINEAR GRAPHS, PIE CHART

Mini Office has a graphics module that can be used by itself, or in conjunction with the spreadsheet module. This means that data from the spreadsheet can be transferred to the graphics module for display as a line-graph, bar-chart or pie-chart.

The transfer of spreadsheet data is carried out by using the 'windows' facility of the spreadsheet. The columns and rows to be converted to a graphic display are first selected into the window, then they are saved as "Graphic Data". The right hand screenshot shows a typical window that has been selected for transfer to the graphics module.

Once the data is transferred, we have to exit the spreadsheet module to the graphics module, where we can now load this new graphics file and

Date	Fairways			Greens			SandSaves			Putts		
	Poss.	Hit	Count	Poss.	Hit	Count	Poss.	Hit	Count	Poss.	Hit	Count
Jan 10	12	10	10	18	15	15	18	15	15	18	15	15
Jan 11	12	10	10	18	15	15	18	15	15	18	15	15
Jan 12	12	10	10	18	15	15	18	15	15	18	15	15
Jan 13	12	10	10	18	15	15	18	15	15	18	15	15
Jan 14	12	10	10	18	15	15	18	15	15	18	15	15
Jan 15	12	10	10	18	15	15	18	15	15	18	15	15

This is a 'window' of data all ready to be exported to the graphics module

display it. The screenshot on the right shows the line-graph generated from the spreadsheet data. The additional text on the screen has been



Transfer the results to the graphics module for a really impressive record

written within the graphics module where a variety of effective text options are available for example, size, bold, outline and position.



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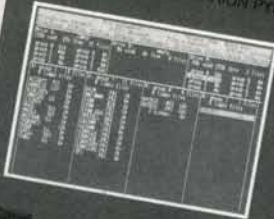
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STEP BY STEP

# Exploiting the Amstrad PCW9512

JOHN CAMPBELL & MARION PYE



Amstrad

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# The Easy Life

*Your PCW is not simply a word processor. Lurking within is the potential to achieve much more. Tim Smith investigates some Utilities – a range of software that can make life a whole lot simpler*

## Relax!

This month's category for the Beginner's Guide is 'Utilities'.

Utilities could almost be described as the set of programs that doesn't fit anywhere else – except that it is more than that.

Every program aims to make your life easier, but Utilities do it in a general way.

They can range from Pools Predictors to Ideas Organisers to 12-track sequencers for all the musicians out there.

Full details of the best in PCW utilities are to be found in the Good Software Guide beginning on page 61 of this magazine.

## Look-alikes

Products often 'overlap' in the utilities market. Although there is nothing on the PCW market to match Flipper 3 in its field, there are rival products to Toolkit. Try "Knife Plus" from Hisoft, for instance, or look through some of the Public Domain catalogues. These latter will be cheaper, but much less user friendly than either of the two commercial tools.

**T**he three programs we are going to examine this month are a disparate bunch. One, Flipper 3, gives you two PCWs in one. Another, Lindex, makes those file information notes which you leave for yourself in LocoScript even more useful. The final program, Toolkit, could save your nerves and even some money.

While each is very different from the next, they are all united by the fact that using them will introduce you to more of the possibilities of your PCW.

The basic principle underlying all of the programs is that the PCW is in fact a computer with a great many of the capabilities of more powerful machines.

That is, machines which are perceived as being more powerful by those experts who think that speed and size is the main criteria for assessment, and that ease of use, and friendliness to the user don't enter the equation.

The concept of the PCW as little more than a glorified typewriter is overturned by programs such as Toolkit, Flipper and Lindex. But the question which most users ask themselves is "Why should I bother learning all this new stuff when I only bought the machine in order to write letters?". One answer to this is that by not at least exploring the potential of your machine, you are not making the most of your

£300 investment. It is akin to buying a car with a built-in radio and CD and then refusing to use them because you bought the automobile to get to work, and not for listening to music in.

Programs like the three we are looking at this month are grouped under the rather unromantic title of 'Utilities'. As the name suggests, there is nothing flashy about their appearance. The flashiness comes from what they can do for your PCW – and that is a great deal.

Another point that supports the case for having at least one non-word processor in your software collection is that it could – at some point in the future – make your life a whole lot easier.

## JARGON BUSTER

Because the programs we are looking at this month are so divorced from LocoScript and other more standard PCW programs, a number of new terms and phrases will crop up. Here, then, is a brief explanation of some of them. For more in-depth information on CP/M and operating systems in general you should consult your manual or turn to The CP/M Plus Handbook (published by Longmans for £14.95).

### OPERATING SYSTEM:

In the case of the PCW the operating system is CP/M Plus. You will have used this if you have ever run the DISKIT program to format discs. Essentially it is the program which underlies all the functions of the PCW. As an analogy, CP/M provides the skeleton from which other programs are hung. It helps these programs to talk to the screen, understand the keyboard, get the information from disc and so on. Without it your PCW is just so much metal, chips and plastic.

### ENVIRONMENT:

This is a term you will encounter when using Flipper – and consequently other programs which run 'under Flipper'. Normally your PCW runs just the one environment, which will be the program you are using at the moment. What Flipper does is give you the chance of running two programs at once, splitting the PCW into two 'environments'. These environments can be LocoScript, a Mini Office application, Money Manager, a BASIC program – in fact almost any program that you would normally run on your PCW.

### ADDRESS:

You'll need to know about this one when using Toolkit. Every file on every disc, and that means hard discs too, has an address. This a number which tells the computer which area (sector) and track on the disc to look for a file. Think of it as a road and house number, or perhaps as a postcode. You may well have suffered the "Missing Address Mark" error message and thought that all your files were lost. Not so. All

this means is that the PCW cannot find the proper address. All addresses are held in the disc's Directory.

### DIRECTORY:

Every disc you use comes with a space on it to store the directory: the names, details, and 'addresses' of all the files on that disc. Using Toolkit, you will encounter the directory a great deal. Essentially, if this area of the disc becomes corrupted, the PCW is unable to find any of the files – because the addresses have been lost. Toolkit enables you to bypass the directory and look through the disc for lost files, which themselves may be undamaged. With a little skill and patience you can then recover them.

### FILE:

Any package of information on your disc is a file. It could be a LocoScript document, a program, a list of data, a piece of clip-art, the current situation in a game you happen to be playing – all these are files.

So far, this sounds like an easy one to be going on with. However, there is more to the humble file than might at first appear. We already know that each one has an address. Using Lindex, you will also see that each one contains information as to what program created it, and, if you use LocoScript's File Information option, you can also get some idea of what information is contained within any file. A good thing to keep in mind about any file you create is that three main pieces of data are held within it:

- 1) What program created it.
- 2) Where it is on the disc.
- 3) The information you put in to it

There are obviously many more pieces of information relating to your PCW which you will not normally come across using LocoScript. But you will find that the more you know about your files, the easier life will become.



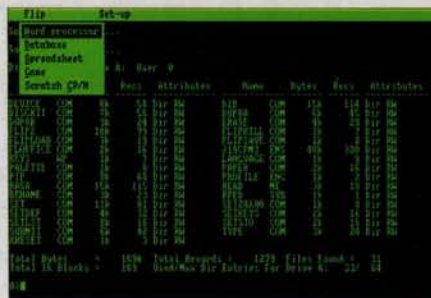
## FLIPPER 3

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The Flipper dynasty has been with us for a number of years now, and it is tried and trusted by many users. The basic aim of the software is to give PCW users the chance to run more than one program on their (512K) machines at once.

Flipper achieves this by digging deep into the PCW memory and segmenting it. The details really are a little too technical for these two pages, but the benefits are immense. For example, you may well use a database under CP/M. There may well be occasions when you need to take data from this and use it (even as reference) in a LocoScript document. Normally accessing both programs at once is an impossibility. Flipper, though, makes it a reality by allowing you to move from one to the other at the press of three keys ([SHIFT] [EXTRA] [EXIT]).

The value to small businesses of such a system, which has now been upgraded and made more user-friendly, is immense. 'Flipping' allows you to have both the information, and the means to manipulate that information at your fingertips as and when you need it.



Flipper 3 here running a whole gamut of environments in a PCW with a lot of extra memory. The current environment is CP/M

Flipper 3's upgrades will also be welcome to most PCW users. Instead of having to cope with the rather stark and unfriendly A> prompt of CP/M (which is very apparent in early versions), Flipper 3 comes with two pull-down menus which accompany you around all of the maximum eight operating environments (programs which are running under Flipper). Because Flipper works in the background, behind the other programs, it does not interfere with your everyday work. This means that once you have loaded it at the Start of Day, you can work quite normally, only

meeting it when you 'flip'.

One point which seems to fascinate users of Flipper concerns the program which has just been 'flipped' from - does the PCW actually keep this program in the background, running as normal? The answer is "No". What Flipper does is to save the section of the PCW's memory which holds the relevant information about the program. It saves its screen image and various operating details, and puts these into a state of 'suspended animation'. Then, when you flip back from the second program to the first, the details saved by Flipper are put back on screen. Simple in theory, but very, very useful in practice.

### PLUSES

The upgrade is a vastly friendlier program  
The manual has improved  
Simple to use

### MINUSES

You need 512K minimum  
Ease of use: 5/5  
Documentation: 5/5  
Performance: 4/5  
Features: 5/5  
8000 Plus value verdict: 19/20

## TOOLKIT

£24.95 • Moonstone Computing  
041 941 3120

Many years ago a writer for 8000 Plus completed his feature ready for use the next day. He placed the disc on the desk and went for lunch. On his return someone had done a very bad job of mopping up the coffee spilt on the same disc. Disaster! 3,500 words down the drain. But not quite so. A copy of Toolkit was brought into action. The file with all its features was recovered, and the day was saved.

That's the kind of situation which occurs a great deal. Coffee, magnets and children can lead to hours of work lost. And we have all suffered from "Address Mark Missing" messages - the disc may be old or faulty, the situation is not your fault, but you are the one to suffer.

Toolkit enables you to have a good go, with a fair chance of success, of rescuing such



Toolkit's screen looks a bit like Mission Control, Houston, but all the information will keep you in control of the operation

seemingly lost files. A close reading of the excellent manual should mean that you will be able to get to grips with the basics of disc surgery. The program will try to cope with even the most obstinate discs, the kind which the drive will not even begin to read. It allows you to copy whole discs (it will try to copy discs that are so

damaged that Diskit will not even touch them) so that you do not have to work on originals and possibly damage them even more. It allows you to edit entire sections of disc space, recovering lost files left, right and centre. It also allows you to write data, such as text from a word processor, from a damaged disc to a healthy one.

### PLUSES

Excellent documentation  
Nerve and money saving  
Well presented

### MINUSES

Requires an element of CP/M knowledge  
Ease of use: 4/5  
Documentation: 5/5  
Features: 4/5  
Performance: 5/5  
8000 Plus value verdict: 18/20

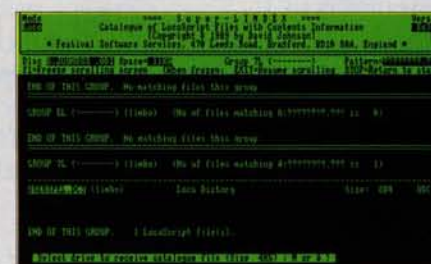
## Super Index

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LocoScript users, or at least the more organised among them, often have recourse to use the Inspect File facility of the disc management screen. This enables you to jot a few notes down telling you when you created a file, what the general gist of the information is, even what kind of mood you were in when you wrote it. This applies to LocoFile as well. Once you have written these they only rarely seem to serve a useful purpose. Wouldn't it be more useful to have a document which contains this information in clearly tabulated form, for every disc you use? Clearly, it would.

This is where Super Index comes in handy. Not only does it let you work on Loco-family files, you can also label Protext files for reference (you do this by providing the information in the first 128 characters of the file).

At heart, Super Index is another simple beast. All it really does is to access the Identity



Super Index - a good way of indexing your LocoScript documents, and of making sure you know what is where!

Text of the files, put them in order, and provide a detailed list either to a new file on disc, or to a straight print out.

But simple does not necessarily have to mean sloppy, and Super Index is clear and concise and in its execution.

For example, once you have booted it up, only the keys which you need to use are active. All the others are disabled so that they cannot be

pressed accidentally - with the time-wasting consequences that could spring from that.

Nothing is left to chance with the program, which takes you through the process of organising files and documenting them, and which tidies up your working practices at the same time. It even appears that the documentation has been improved. Not bad for a program which started life as a way to raise money for local churches in a competition.

### PLUSES

Excellent documentation  
Easy to use  
Well presented

### MINUSES

Only really for Loco family  
Ease of use: 5/5  
Documentation: 5/5  
Features: 4/5  
Performance: 5/5  
8000 Plus value verdict: 19/20



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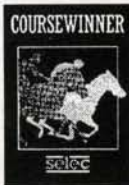


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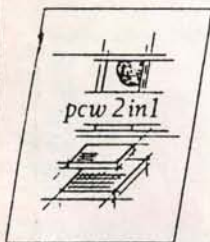


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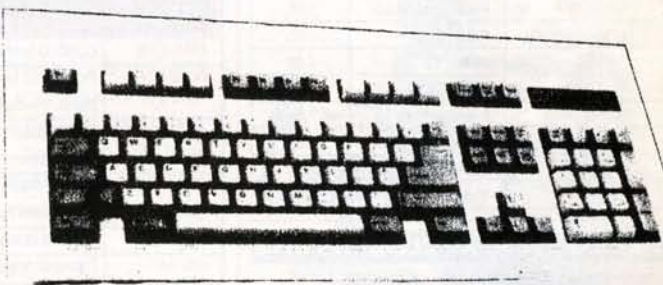


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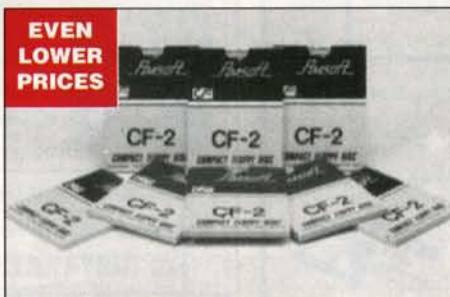
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RB2426FN	DMP4000 Fabric Black *Reduced price	4.99	4.52	4.05
RB2741DN	LQ3500 Fabric Black *Reduced price	4.46	4.00	3.60
RB2741MS	PCW 8256 Carbon Black *Reduced price	2.82	2.64	2.46
RB2888DN	PCW8256 Fabric Black *Reduced price	2.82	2.64	2.46
RB2741FNDR	PCW8256 Fabric Red	5.28	4.80	4.34
RB2741FNBL	PCW8256 Fabric Blue	5.28	4.80	4.34
RB2741FNBR	PCW8256 Fabric Brown	5.28	4.80	4.34
RB2741FNGR	PCW8256 Fabric Green	5.28	4.80	4.34
RB2746MS	PCW9512 Carbon Black *Reduced price	2.23	2.05	1.88
RB2746FN	PCW9512 Fabric Black *Reduced price	2.23	2.05	1.88
RB2746FNDR	PCW9512 Fabric Red	4.57	4.11	3.73
RB2746FNBL	PCW9512 Fabric Blue	4.57	4.11	3.73
RB2746FNBR	PCW9512 Fabric Brown	4.57	4.11	3.73
RB2746FNBR	PCW9512 Fabric Brown	4.57	4.11	3.73

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RBAM006	PCW9512 branded carbon ribbon black *Reduced price	2.90	2.80	2.70
RBAM003	PCW8256/8512/LQ3500 branded nylon ribbon *Reduced price	4.50	4.35	4.20
RBAM004	PCW8256/8512/LQ3500 branded carbon film ribbon *Reduced price	4.50	4.35	4.20
RBAM002	DMP4000 branded nylon ribbon	8.21	7.57	7.05
RBAM001	DMP2000/3000 branded nylon ribbon	6.11	5.64	5.28

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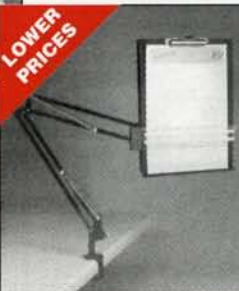
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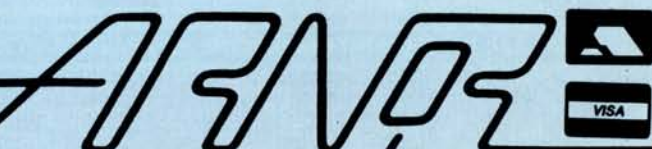
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# Listings

*Martin Le Poidevin helps you squeeze more on to your discs, keep a track of the date, work out your gas bill and compare prices – all with BASIC*

## 178KDISC.BAS by J Eggeling

This one is for 8000 series owners only. It's happened to us all. There you are, nearing the end of a large writing project, being good and saving regularly to disc. You come to the end of another section and decide to save it to disc, before creating another document for the next section.

You see, you've even remembered to keep the documents short.

And there it is. The message from your computer telling you, ever so politely, that there is absolutely no space left on the disc.

It's eleven o'clock at night, you have no spare discs, there is no computer shop open this side of the International date line, and you've run out of disc space. What you wouldn't give for an extra 5k.

Well, this month we show you how to acquire that extra 5k.

Admittedly, it only puts that off the dreaded 'Disc full' message, but over a series of discs that will begin to mount up to quite a substantial amount of useful extra disc space.

So what are the catches? There are remarkably few, but they arise from the

way in which the computer wrestles space back from CP/M. An A: drive disc is actually formatted to hold 180k of data. But you and I don't get to see 7k of that - it gets earmarked by CP/M, 2k of it for a disc 'directory', and the other 5k for 'system' information.

This system information is what gets the computer going in the morning - it tells the PCW to look for a file ending in .EMS. Obviously vital for booting up, but not for a data disc. In other words, we can live without it, and that is where we obtain our extra data space.

The directory, of course, cannot be removed - or else the computer would not know where to look for any of the disc's files.

What all this means is that you cannot use a disc formatted as 178k to boot up the system. So as Mr Eggeling says, if you are looking for a way of getting a PROFILE.SUB on to a jam-packed start of day disc then you must look elsewhere. One other drawback is that Diskit will not copy the disc - it formats a disc as it goes, and since it is

```
Format completed - please remove disc
Insert your BASIC disc then press any key
Ok
system
A>B:
B>SHOW A:
A: RW, Space:      178k
B>■
```

The proof of the formatting. 178k for you to use as program or data space - just don't try to boot from the disc

set up to format 173k of user space, it is obviously going to scratch its head a little bit over those last 5k. The same goes for LocoScript.

The trick here is to use CP/M's PIP to copy all the files across.

As you can imagine, the program works quite close to the heart of CP/M, so be careful when typing it in.

On the other hand, it does carry out internal checks, and has a very competent error-trapping mechanism, so that if anything does go wrong, it should not prove fatal.

## ERROR!

Most of you managed to work out how the 8000 Plus car got so far on so little petrol! The answer was in line 60 of PETROL.BAS, which should have read:

60 G=L/4.546

Apologies for any false expectations we may have raised about your fuel consumption!

10 cls\$=CHR\$(27)+"E"+CHR\$(27)+"H":PRINT cls\$	10D8
20 DEF FNat\$(x,y,z\$)=CHR\$(27)+"Y"+CHR\$(32+y)+CHR\$(32+x)+z\$	168C
30 MEMORY &HF4FF:sum=0:GOSUB 190	0FBC
40 PRINT FNat\$(30,5,"To format a disc in drive A");	16AC
50 PRINT FNat\$(24,10,"Insert disc to format then press PASTE ");	1ED9
60 GOSUB 380	0558
70 ans=ASC(an\$):IF ans<>23 THEN PRINT CHR\$(7):GOTO 50	1881
80 PRINT cls\$	0630
90 format=&HF500:track=&HF505:errors=&HF53C:login=&HF53D	1DBD

The numbers in line 90 remind the computer of several locations within its memory. These are unfamiliar 'hex' numbers, so make sure they are correct

100 FOR I=0 TO 39:POKE track,I	0E1E
110 FOR J=0 TO 8:cylinder=&HF518+4*J:POKE cylinder,I:NEXT	1C48
120 PRINT FNat\$(0,5,"Formatting track number");I;	17BB

When the program ends, it wipes itself out of the PCW's memory. So make certain that you save the program before running it

130 CALL format:numb=PEEK(errors):IF numb<255 THEN GOTO 300	1DE9
140 NEXT	041E
150 PRINT FNat\$(0,5,"Format completed - please remove disc")	1CFA
160 PRINT FNat\$(0,7,"Insert your BASIC disc then press any key");:GOSUB 380	251F
170 CALL login:NEW	08B1
180 :	012C
190 FOR I=1 TO 73	0743
200 READ byte\$:byte=VAL("&H"+byte\$):POKE HIMEM+I,byte:sum=sum+byte	214E



```

210 NEXT                                0417
220 IF sum<>5975 THEN PRINT "DATA Error in lines 240-290" ELSE RETURN 2067
230 END                                0366
240 DATA 01,00,01,11,E5,00,DD,21,4A,FF,21,18 0E30
250 DATA F5,CD,5A,FC,8F,00,38,03,32,3C,F5,C9 0F7E
260 DATA 00,00,C1,02,00,00,C6,02,00,00,C2,02 0CC6
270 DATA 00,00,C7,02,00,00,C3,02,00,00,C8,02 0CDE
280 DATA 00,00,C4,02,00,00,C9,02,00,00,C5,02 0CF6

```

**This block of machine code is vital to the running of the program. Make sure it is correct**

```

290 DATA FF,0E,00,DD,21,4A,FF,CD,5A,FC,92,00,C9 1103
300 error$(0)="Drive not ready - insert disc to format then type RUN" 23E7
310 error$(1)="Disc write protected - unprotect disc then type RUN" 2366
320 error$(2)="Track not found - Please recheck program listing" 217D
330 error$(3)="Data Error - Please recheck program listing" 1DFE
340 error$(4)="No Data - Please recheck program listing" 1C77
350 error$(5)="Missing address mark" 1228
360 error$(8)="Sector number error - Please recheck program listing" 23ED
370 PRINT FNat$(0,7,error$(numb));:END 11F0
380 an$=INKEY$:WHILE an$="" :an$=INKEY$:WEND:RETURN 1A3E

```

**Line 380 is a useful line for any program - it waits for a keypress before moving on, or in this case returning to an earlier point in the program**

## DATEPRIN.ASC by A Baker

Not many people know this, but deep in the heart of CP/M there is a clock. This clock keeps an eye not just on the time of day but also the day of the year.

The normal way of accessing this clock is through CP/M's DATE utility (to be found on side 3 of the 8000 series CP/M master discs, and on the 9512 CP/M master disc), but Dr Baker's neat little program will allow you to access it - even if you are in BASIC. Luckily, with DATE you can not just read the clock - you can also set it.

You can do that now if you are in CP/M - just put the correct side of the disc into the drive you are logged in to, and type DATE [RETURN].

But you'll almost certainly recognise a problem here. Both the date and the time are wrong.

This is because the computer needs power to maintain the clock, and every time that the computer is turned off and then on again, the clock is reset to midnight on the day that your particular version of CP/M was created. The date you are now looking at is probably the 15th December 1982, and the time will tell you how long the machine has been on for this session.

So we need to program in the correct time and date. The formula for this is: DATE MM/DD/YY hh:mm:ss [RETURN] (as the manual so lucidly informs you).

This means, type the name of the program, the number of the correct month followed a slash, the correct day followed by a slash (notice that the computer deals with the date in the American fashion); then a space followed by the hour (the PCW works on the 24 hour clock), a colon, the minutes, a colon, and the seconds.

For instance, if you want to set the time to 3.47 (and 49 seconds) on the afternoon of 17th July, 1991, the

command sequence you want is: DATE

07/17/91 15:47:49

[RETURN]. Then hit any key at the precise moment that you want the clock to start running.

You will obviously have to do this at the start of every session if you want to have the correct date always

programmed in - perhaps you could make it part of your PROFILE.SUB file.

Dr Baker's program works by reading the part of the memory that keeps the clock. These are bytes 64500-64504. Of these, the first two are responsible for keeping the date.

However, the date is kept as a number rather than as a pure date. The first thing the program must do, then, is translate this into a recognisable form (it does this by counting the days since 1st January 1991); it then prints this to the screen, and gives you the opportunity of

```

?
A>DATE
Sun 12/15/91 00:00:18
A>DATE 07/15/91 15:37:23
Strike key to set time
A>■

```

Two stages in our quest for the correct day. First, the readout when the computer is turned on, then updating it...

printing it in hard copy. Since the program is set up to print at the right-hand edge of the paper, it is ideal for letters and for putting the date at the top of your latest BASIC listing.

As it stands, the program will work with the 9512 printer. If you want it to print to the 8000 series dot matrix printer, you will have to change lines 90 and 100 as follows:

```

90 FIN$=CHR$(27)+"A"+CHR$(12)+CHR$(13)
100 OPTION NOT TAB: LPRINT CHR$(27)+"A"+CHR$(0)

```

```

10 PRINT "DATEPRIN.BAS - Prints internal date - by A R Baker"
20 DIM n%(12): READ pr%: t=256*PEEK(64501!)+PEEK(64500!)
30 n%=365: s%=1: WHILE t>n%: t=t-n%: s%=s%+1
40 IF (s%+1)/4-INT((s%+1)/4)=0 THEN n%=366 ELSE n%=365
50 WEND: y%=1977+s%: FOR s%=1 TO 12: READ n%(s%): NEXT s%
60 IF n%=366 THEN n%(2)=29
70 s%=1: WHILE t>n%(s%): t=t-n%(s%): s%=s%+1: WEND
80 FOR j%= 1 TO s%: READ mon$: NEXT j%
90 fin$=CHR$(27)+CHR$(30)+CHR$(9)+CHR$(13)
100 OPTION NOT TAB: LPRINT CHR$(27)+CHR$(30)+CHR$(1)
110 PRINT "Want output on printer? Yes or No";TAB(65);
120 yorn$=UPPER$(INPUT$(1)): IF yorn$<>"Y" THEN yorn$="N"
130 PRINT yorn$: lef%=100: rit%=0: x%=LPOS(0)
140 WHILE x%>rit%: lef%=MIN(lef%,x%): rit%=MAX(rit%,x%)
150 LPRINT " "; x%=LPOS(0): WEND: wid%=rit%-lef%
160 PRINT TAB(wid%-8-LEN(mon$));: IF t<10 THEN PRINT " ";
170 PRINT t;mon$;STR$(y%): PRINT "Print width =";wid%
180 IF yorn$<>"Y" THEN LPRINT fin$;: OPTION TAB: END
190 LPRINT TAB(wid%-8-LEN(mon$));: IF t<10 THEN LPRINT " ";
200 LPRINT t;mon$;STR$(y%); fin$:
210 FOR j%=1 TO pr%: LPRINT: NEXT j%: OPTION TAB: END
220 DATA 2,31,28,31,30,31,30,31,31,30,31,30,31
230 DATA "January","February","March","April","May","June"
240 DATA "July","August","September","October","November","December"

```

...and finally the print out at the top of a listing (this listing, in fact). But if you were to improve your program next week, you would have documentary evidence of its evolutionary journey

## Hard choice

There are some pieces of hardware for the PCW that will help you maintain your internal clock up to date, even when the computer itself is turned off. Look in the mail order advertisements in this magazine for bargains!



```

10 PRINT "DATEPRIN.BAS - Prints internal date - by A R Baker" 1EA2
20 DIM n%(12): READ pr%: t=256*PEEK(64501!)+PEEK(64500!) 14B1
30 n%=365: s%=1: WHILE t>n%: t=t-n%: s%=s%+1 1135
40 IF (s%+1)/4-INT((s%+1)/4)=0 THEN n%=366 ELSE n%=365 13A4
50 WEND: y%=1977+s%: FOR s%=1 TO 12: READ n%(s%): NEXT s% 1708
60 IF n%=366 THEN n%(2)=29 0921
70 s%=1: WHILE t>n%(s%): t=t-n%(s%): s%=s%+1: WEND 12ED
80 FOR j%= 1 TO s%: READ mon$: NEXT j% 1118
90 fin$=CHR$(27)+CHR$(30)+CHR$(9)+CHR$(13) 0EBD

```

Line 20 'peeks' into computer's memory in order to find the current date information

```

100 OPTION NOT TAB: LPRINT CHR$(27)+CHR$(30)+CHR$(1) 17A0
110 PRINT "Want output on printer? Yes or No";TAB(65); 1CCF
120 yorn$=UPPER$(INPUT$(1)): IF yorn$<>"Y" THEN yorn$="N" 1B28
130 PRINT yorn$: lef%=100: rit%=0: x%=LPOS(0) 1355
140 WHILE x%>rit%: lef%=MIN(lef%,x%): rit%=MAX(rit%,x%) 17F4
150 LPRINT " ";: x%=LPOS(0): WEND: wid%=rit%-lef% 160A
160 PRINT TAB(wid%-8-LEN(mon$));: IF t<10 THEN PRINT " "; 191D
170 PRINT t;mon$;STR$(y%): PRINT "Print width =";wid% 1AF8

```

This part of the program sets the printer up. Don't forget to change lines 90 and 100 if you use an 8000 series computer

```

180 IF yorn$<>"Y" THEN LPRINT fin$;: OPTION TAB: END 1908
190 LPRINT TAB(wid%-8-LEN(mon$));: IF t<10 THEN LPRINT " "; 1AAA
200 LPRINT t;mon$;STR$(y%); fin$; 101A
210 FOR j%=1 TO pr%: LPRINT: NEXT j%: OPTION TAB: END 1A7F
220 DATA 0,31,28,31,30,31,30,31,31,30,31,30,31 0CAE
230 DATA "January","February","March","April","May","June" 1DE1
240 DATA "July","August","September","October","November","December" 22BA

```

If you want the computer to move down the page after printing the date, change the '0' at the start of the DATA in line 220 to the number of lines down the page you wish the computer to move

## STARTERS' ORDERS - GASBILL.BAS by Martin Laker

Another in our series of short, simple programs for those of you who have not typed in a Listing before. This one should help you with your gas bill.

The Gas Board seems to delight in sending out bills which are vast over-estimates, and which imply that half the North Sea Gas Reserve has been through your humble cooker in the last three months. Your natural reaction is to write straight back and tell them of their mistake, quoting the correct price. But what is that correct price?

Well, once you have typed in (see the 'How to type in a Listing' box) and saved the program (use the name 'GASBILL.BAS'), run it. You will be

asked a series of questions, the answers to which will come either from the rogue bill or from your meter.

When answering the money questions, make sure that you always give your reply in terms of pounds - ie, £599 should be entered as 599 [RETURN], and tuppence ha'penny as 0.025 [RETURN]. Your Calorific capacity reading should always be the same, and the standing charge will be a constant, too - or so you would like to hope!

```

Ok
RUN "GASBILL.BAS"
What is your current standing charge per quarter? (£)? 9.4
What is your calorific valve capacity (in Btu/cubic feet)? 1032
What is the current unit price per therm? (£)? 0.428
present reading? 2347
previous reading? 2258

Your revised Gas Bill

Gas used      39.31
Standing charge  9.40

TOTAL        £ 48.71
Ok

```

So, not so bad after all. Your PCW does what the Gas Board's mainframe does, only more accurately, it seems

```

10 REM Gasbill by Martin Laker 0FCC
20 INPUT "What is your current standing charge per quarter? (£)";sc 2547
30 INPUT "What is your calorific valve capacity (in Btu/cubic feet)";cv 2546
40 INPUT "What is the current unit price per therm? (£)";up 20AD
50 INPUT "present reading";p 0F2F
60 INPUT "previous reading";q 1049
70 v=p-q:v=v*cv/1000:b=v*up 0C78
80 PRINT:PRINT"Your revised Gas Bill":PRINT 18A2
90 PRINT"Gas used "; USING"#####.###";b 0F9C
100 PRINT"Standing charge "; USING"#####.###";sc 1424
110 PRINT 0466
120 PRINT"TOTAL £"; USING"#####.###";b+sc 1049

```

Type in this listing carefully, and you will be able to help the Gas Company calculate your bill - correctly. What the program does is take in information, perform set calculations with it, and print out the results



**COSTCOMP.BAS by M.J.Fulcher**

Here's a teaser for you. "Seven Dwarves (advertising slogan: "It's not quite so Snow White, but at least it's cheap") detergent comes in a 327g pack and costs £2.74 for that pack. "Grunge" detergent ("Washes slightly on the grey side of yellow, but you'll never notice on those black trousers") comes in a 413g pack, and costs £3.37 for that same pack.

The question is quite simple: which is the cheaper of the two?

And the answer? Well, we couldn't work it out, so we ran it through the second of this month's Starters' Orders programs. You can see the answer in the screen shot below. Knowing quickly and accurately the relative difference in price between two comparable packages is an art that is becoming more and more important. In the age of bumper, bargain, economy and family packs, it is getting difficult to know which packages really mean what they say, and those which merely flatter to deceive (or defraud).

This program will help you sift the cheap from the dear. Beautifully simple, it asks for the information that it needs to do its calculations, then displays its

findings - which, unit for unit, is the best value of the two, and the percentage difference to back up its claim. With these solid facts, you can make the final decision about your purchase with much greater confidence.

If you have more than two different product prices to compare, you may like to run the program a couple of times, inputting the better price of the first run into the second.

Whatever figures you are inputting, it is important to remember that the computer can only deal with what you give it. It doesn't know or care whether it's dealing with grams, ounces, litres or tons, nor whether the money is in pounds, pence, roubles or cowrie shells. The important thing is that to come up with a fair comparison, it must compare like with like.

So some conversion may be necessary - say, from ounces to grams, or from pounds to pence - in order to get the correct result.

On the other hand, it can cope with very large numbers, so you can easily sort out your bulk buy orders. This program could save you a lot of money!

```
Ok
Run
How many units in pack A ? 327
Price of pack A ? 2.74
How many units in pack B? 413
Price of pack B? 3.37

Price per unit for pack A = 0.8379205
Price per unit for pack B = 0.8159806

Pack B is cheaper by 2.618372 %
Ok
```

So then, the answer to our teaser. Did you get it right, without using a calculator?

**For the Future**

This month, we'd like to issue a couple of challenges.

One is fairly simple - DATEPRIN prints out the date in BASIC, but can you think of a good program to actually set the date in BASIC? Secondly, we've had a few queries now about a BASIC program that could write bar-codes. Again, any suggestions? The best workable program in either of these categories will be printed in the magazine - and earn its author some reasonably hard cash. So get thinking, and keep reading these pages!

```
10 REM COST COMPARISON by M J Fulcher
20 INPUT "How many units in pack A ";sizea
30 INPUT "Price of pack A ";costa
40 INPUT "How many units in pack B";sizeb
50 INPUT "Price of pack B";costb
60 unita=costa/sizea
70 unitb=costb/sizeb
80 PRINT:PRINT "Price per unit for pack A = ";unita
90 PRINT "price per unit for pack B = ";unitb
100 PRINT:IF unita<unitb THEN PRINT "Pack A is cheaper by";((unitb-
unita)/unitb)*100;"%"
110 IF unitb<unita THEN PRINT "Pack B is cheaper by";((unita-
unitb)/unita)*100;"%"
120 IF unita=unitb THEN PRINT "There is no difference between the two !"

134C
16D3
1147
16E5
1159
0C6D
0C7D
1BB5
16B2
2E34
27E1
250E
```

The program begins by asking for the details of the two packs involved. It stores what you tell it in memory, using easy-to-identify labels. The calculations, comparisons and printing then follow. Notice that line 120 will report even if there is no difference

**How to type in a listing**

The first thing to do is to boot up CP/M, by loading the disc into the machine at turn-on time; when it settles down type in the word BASIC and hit [RETURN]. You will be given a bit of information about Mallard BASIC, and the prompt "Ok". You can now begin to type in the program.

Each line begins with a number. This must be typed in, along with the text that follows it, but not the list of numbers on the right hand side (these are part of a checking procedure we publish from time to time). Make sure that what you type is exactly what is on the page, especially in terms of punctuation. One semi-colon instead of colon may not seem much to you, but it could spell disaster for the program. Be careful, as well, that you differentiate properly between "0" (the number zero) and "O" (the capital "O"), and between "1" (the number "1") and the

lower case "L". From such small errors, great crashes flow.

If you do spot an error in a line as you are typing it in, use the cursor keys to go back and amend it. Once you are sure that a line is typed in correctly, then hit the [RETURN] button and go on to the next one. If you subsequently notice a mistake, type "edit", followed by the line number and [RETURN], and you will be given the chance to make your correction. Once you have typed in the whole program, check that everything is there as it should be by typing "list" [RETURN]. The whole program will scroll past you. To stop it at any point press [F5], and to restart it press [F5] again.

If all is present and correct, save your program to disc by typing "save" followed by the program name, which must be in quotation marks.

Now comes the moment of truth. Type run [RETURN]. If all has gone well, it will work first time.

If not, you may be given an error message, often with a line number attached (which may or may not help - often that can be the line in which an earlier mis-type can become critical) so that you can rectify the fault.

If there is no fault there, or no line number, check the rest of the program with a fine toothcomb.

Don't forget to save the improved version of the program (use the same filename and the old, bugged version will be deleted).

When you want to use the program again you must first load BASIC as before, the type: "LOAD "filename" [RETURN]. It can then be used as before, by typing RUN [RETURN].



PHONE OR  
WRITE FOR DETAILS!

COMING SOON....

PHONE OR  
WRITE FOR DETAILS!

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# The Write Lines

*Success as a freelance writer depends on more than just a flair for language. Steve Copestake helps you to master some extra skills*

**A**re you a closet writer? If so, do you write short stories? If you own an Amstrad PCW, the probable answer to both questions is yes. Indeed, the PCW remains the writer's word processor par excellence. But, given that you are a writer, and that like all writers your secret, burning ambition is to be published, do you know how best to prepare your manuscripts? Are you sure that you can submit them in a way that will maximise your chances

of acceptance? Where should you submit them? Do you know exactly what the editor is looking for?

Well, as the editor of XENOS, an established short-story magazine, I hope this article will help you achieve what every writer yearns to accomplish: getting into print.

The good news is that you can happily keep on using LocoScript and LocoFile to help you achieve your objective with the least effort - they

come in particularly useful when contacting the multiplicity of small magazines now on the market.

You can also use them to set up your own index system, and thus keep paperwork down to a minimum. Unlike publishing in general, the small-press world is enjoying an unprecedented upturn. There are well over two hundred regular small magazines in the UK now. Any help with that amount of correspondence must be worth a lot.

## Useful publications

*Writers' News*, P.O. Box 4, Nairn, Scotland  
*The Writers' Handbook* (all major bookshops)  
*Writers' and Artists' Yearbook* (major bookshops)  
*Writers' Guide*, Ventura Publications, 11 Shirley St, Hove, East Sussex BN3 3WJ

## STARTING OUT - USING LOCOSCRIPT

LocoScript is the means of sending off tailor-made manuscripts that will maximise your chances of acceptance.

First set a layout in your document with margins at 20 and 75 and a tab at 25. In **LocoScript 2**, at the start of the new document, press [F2], select 'Change layout', and press [ENTER]. Now hit [F3] and select 'clear all tabs' [ENTER]. Move the cursor to 20 and press [F1] [ENTER] to set the left

margin; then move along to 25 and press [+] to set the tab. Move to 75 and press [F1] [down cursor] [ENTER] to set the right margin. [EXIT] to the document.

**LocoScript 1:** At the start of the new document, press [F7] [ENTER] [F7] [down cursor]. If there are any tabs set (shown by arrows or blobs in the ruler line) delete them by moving over them and pressing [-]. Move the cursor to 20 and press [F1] to set the left margin.

Move to 25 and press [F3] to set the tab. Move to 75 and press [F2] to set the right margin. [EXIT] back to the main document. These margins, combined with double line spacing ([+] LS2 [ENTER]) will allow plenty of space for editorial annotations and proofreading symbols. If you follow all this advice, your stories will be well-presented and sent to the right places - both key factors on the route to success!

## SHORTCUTS TO SUCCESS

### ● Layout

The key to everything when sending off a story is: put yourself in the editor's shoes. If you were sitting there reading story after story, wouldn't you prefer it if you didn't have to strain your eyes to read them? So make sure that when you are printing out your manuscript, you always use a new,

or nearly new, ribbon. This hint is an enormous help when it comes to getting your story noticed and helping it to stand out from the rest. It also represents the sort of thought and care that must go into your presentation. If you can impress at this stage, then the future looks promising.

### ● Stamp of approval

Always, but always, enclose a stamped addressed envelope, or if you're submitting to a foreign magazine, International Reply Coupons (available from your local post office). Look at it from the editor's point of view again. He (or she -Ed!) is sitting there in front of a generous supply of manuscripts,

## USING LOCOFILE

If you have LocoFile, you can make your initial manuscript sending even easier.

With LocoFile loaded, press [F1] and scroll down to the 'Create LocoFile data' option. Press [ENTER] and choose a name for the file - the example shown uses, **MAGAZINE.DAT**.

Press [ENTER] and the blank card shown will appear on the screen.

Now move the cursor to the top left hand corner and press [+]. Move eight spaces to the right and press [ENTER] again. This has fixed the box. You can now type in the name of this field. 'Magazine' sounds fairly apt. Press [ENTER].

This same procedure is repeated to set up the other boxes in the example. The box sizes, of course, have to vary according to the information they'll contain but they're set up using exactly the same techniques, using first [+] and then defining and setting them by movements of the cursor keys followed by [ENTER]. Pressing [EXIT] at the end will enable you to start entering information into

the boxes.

A few other things need explaining. The field 'Type' refers to categories of stories handled by the various magazines. You might try, initially at

Magazine	Address	Contact	Type
group 1			
group 2			
group 3			
group 4			
group 5			
group 6			
group 7			
group 8			
group 9			
group 10			

The initial data file in its completed form

least, the following codes: S = science-fiction, F = fantasy, O = occult, H = humour, R = Romance, D = detective fiction, L = Literary and X = combinations thereof. These codes can, of course, be made more specific over a period of time. It's easily possible to customise them even further and add additional categories. 'SP', for instance, might

be used for science fiction magazines who prefer the psychological angle. The possibilities are almost limitless! The 'NOTES' field is intended for details of when particular stories have been sent

Magazine	Address	Contact	Type
group 1			
group 2			
group 3			
group 4			
group 5			
group 6			
group 7			
group 8			
group 9			
group 10			

You may need to expand the card size. This is how

and when returned. Eventually it can be extended to include a diary system, and anything else you think worthy of mentioning! Of course, you'll soon reach the stage where the 'NOTES' section won't be big enough. When this happens, press [F1] within LocoFile, scroll to 'Datafile set-up' and press [ENTER]. Press [F5], scroll to 'Card height' and



many of which will be unsuitable. If yours didn't arrive with an SAE then it is more than likely that he'll take the view that you don't care, and will put the whole lot in the bin. This is not disastrous, of course, if you've kept a copy on disc – but not amusing either.

Print on one side of A4 (or approximate) paper only and leave a double spacing between lines and generous margins on both edges. Use a character pitch of 10 – there are magazines (notably some American ones) who won't look at submissions with any other character size.

Don't right-justify text; the unevenness of unjustified text is much easier on the eyes.

## ● Punctuation

Despite all protestations to the contrary, grammar and punctuation are important. Not all-important, but there is no doubt that they exercise an effect on the editor. Your aim is to ensure that attention isn't distracted from the story. Using commas where full stops or semi-colons are required, for instance, can be off-putting.

## ● Selecting a genre

There's no doubt that 'genre' fiction is much easier to sell than the 'literary' variety. Which means that science fiction, fantasy, horror, occult, romance and historical fiction are likely to be more successful than anything else. It's anyone's guess why this should be so, but it is an undeniable fact that there are relatively few literary short story magazines. Some do deliberately combine both categories, but it has to be said that to get accepted, you would be better off plumping for 'straight' genre fiction.

Then, having chosen the genre(s) that appeal to you, you should compile a list of magazines you wish to submit to. More about the submission exercise later; for the moment, let's address the task of finding the magazines.

## ● Targetting your articles

And indeed, they are hard to find if you don't know where to look. You won't see small-press magazines on the shelves of your local W.H. Smith's. Very few small publications can afford the extra charges that the 'middle-men' impose.

Your best single source, and the cheapest, will be Light's List (c/o John Light, 29 Longfield Road, Tring, Herts HP23 4DG). At 40p, this gives you brief details of some 200 small-press magazines, and the list is by no means complete. Once you've got the list (send 40p plus an SAE to John Light) use it to narrow down to, say, twenty magazines.

The big mistake many people now make is to send their manuscripts off straight away. The fact is, with so many small press magazines around, they tend to specialise. You must find out the type of stories each handles.

Conventional wisdom suggests that you should read up to a dozen copies of each and analyse the content intimately, which is fine if you've got ten years and a small fortune to spare. And since editors' and editorial policy alter periodically, by the time you got to the last, the earlier ones would have changed.

Instead, you should write to each editor, enclosing a SAE or IRCs of course, asking for what are known as 'contributors' guidelines'. Just about every magazine has pre-printed guidelines; they'll tell you roughly how long stories should be, what they should feature, and so on and are usually quite specific. This isn't to say that you should slavishly adhere to the guidelines, churning out stories to a formula. That's not writing, and no editor worth his salt will want to read it. What you should do is write from the heart about topics and themes that interest you, and then either submit them to magazines you know from your research handle that type of thing, or else 'colour' them. 'Colouring' means giving them a flavour that you know a particular editor wants,

one that doesn't materially affect what you've written.

## ● Tailoring your work

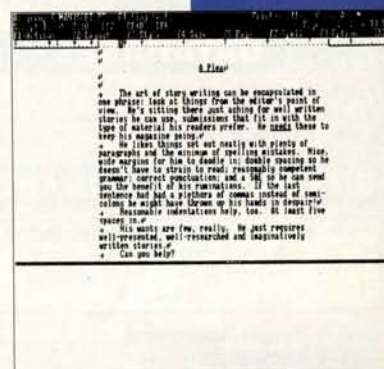
As a rather obvious example, let's say you felt impelled to write a story on the Jekyll and Hyde theme. It's been done before, but then – broadly speaking – so has everything. The problem is finding a new angle. You might write the story and then look around, but it probably makes more sense to study your guidelines first.

If you had guidelines for Analog, one of the oldest American science fiction magazines, you'd see that they like to emphasise the science part – so you might well choose to write your story stressing the 'science' involved in Jekyll's transformation, and to labour Hyde's humaneness, exploring his motivations and emphasising his characterisation.

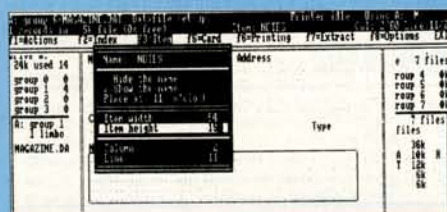
This is a rather oversimplified example, but the general principle is clear. Know your market. And, once you know it, keep on addressing it. Develop a relationship with the editor so that he knows your name. Don't let him forget you, which doesn't mean make a nuisance of yourself; rather, let him know that you're sensitive to his needs and that, above all, you're not going to give up.

## ● Payment

Don't expect payment from most small press magazines. It is normal to expect a complimentary copy of the magazine in lieu of this. Larger publications usually pay £X per hundred/thousand words published, and will generally be happy to let you know their rates in advance. ●



Clear layout is essential



Altering the item size in LocoFile

would be sent out to XENOS. If, on the other hand, you had a purely science fiction story the second line would be amended to:

[+M # Type [does not equal] "S" AND Type [does not equal] "X" : < : \* : > [-]M

to take into account the fact that you also want the story sent to magazines with quite a wide acceptance band.

Typing: [+M Contact [-]M

[+M Address [-]M

at the bottom of the letter will have the magazine's name and address printed out automatically for you. [Does not equal], by the way, is typed by



This is an example of a good 'standard' letter to editors, complete with LocoMail codes

pressing [EXTRA] and # together.

The wording of the letter itself, of course, is open to revision as you get to know each individual editor better.

A word of caution here - always resist the temptation to sound as though you know them; they will be far more impressed if your letter shows that you know their magazine!

type in, say, '25'. Press [ENTER] twice. This increases the card size. Then, to increase the size of the Notes field, take the cursor down to the top left hand corner of 'NOTES' and press [f3] followed by [ENTER]. Cursor down to 'Item height' and insert, say, '15'. Press [ENTER] twice and [EXIT] to return to LocoFile proper. Your card and item will have magically expanded!

To turn this into a mailshot, you will first have to set up a relevant index from within MAGAZINE.DAT. Press [f1] then scroll to 'Datafile set-up' and press [ENTER]. Press [f2], move to 'Magazine' and press [+]. Press [ENTER] twice. Press [EXIT] and [ENTER] and [EXIT] again.

Now, using LocoScript, set up a letter along the lines of the example. Scroll to the top left hand corner and type:

[+M \$ = "Magazine" [-]M

[+M # Type " : < : \* : > [-]M.

Between the two speechmarks insert the code you're asking LocoMail to search for.

If, for example, you had a story that didn't fit into any rigid categories you'd type "X" and it



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## PRINTERS

All the following printers are supplied with the necessary cable for your 9512. If you have an 8256 or 8512 you will need a suitable interface, such as the SCA Professional at £49.95. A suitable cable will then be supplied to fit this.

We are happy to give our advice on printers. Please call the number shown below during normal office hours.

### 9 Pin Printers

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# THE GOOD Software FILE

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Word Processors (including Desk Top Publishers), Accounts/Payroll packages and Utilities. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel printer cannot print graphical output.

The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available.

As well as a brief summary of what they do, the main Plus and Minus points for each program are listed – Pluses have a s by them, Minuses a t. Those we think are particularly noteworthy have a corner flash.

Have fun window shopping!

## WORD PROCESSORS

Word processors are at the heart of the PCW world. The native package, of course, is LocoScript, but several others are available. Their main function, of course, is to handle text – but there are many features added to that which are individual to each program.

### PROTEXT/POCKET PROTEXT

£59.95/£29.95

Arnor • 0733 68909

The best CP/M wordprocessor. Very fast at moving around large files, and packed with features. Works with LocoScript keys too. Comes complete with a good spelling checker, a lightning fast word counter and a very powerful mailmerger. 'Pocket Protext' is a stripped down version – essentially the same word processing features, but no spell checker or mailmerger, and lacking one or two incidental facilities like two column printing. Specify which machine you have when buying.

#### PLUSES • MINUSES

- ▲ Complete with spelling checker/word counter
- ▲ Packed with features, eg. calculate facility, text editor for writing programs, 'print to screen' option etc.
- ▲ Lets you work with two documents at once
- ▲ You can do all of CP/M's functions without leaving Protext
- ▲ Very fast at moving around, doing exchanges and so on
- ▲ Extremely powerful and flexible mailmerger
- ▼ Forces you to learn another new set of control keys to use it
- ▼ Not as slick as LocoScript in its printer controls

### TASWORD 8000

£24.95 • Tasman • 0532 438301 • 8000's only

Simplifies document planning by minimising dependency on layout procedures. Allows quick and easy access to parts of text by existence of a marker system. The 'Search' and 'Find/Replace' facilities are simple to use, but very thorough.

#### PLUSES • MINUSES

- ▲ Easy to use
- ▲ Excellent mailmerge and label-printing ability

### EASY LABELLER

£29.95 (plus VAT) • M.A.S.S. • 0603 630768

Labelling program which stores your names and address list and will print out in label format selected items from it.

#### PLUSES • MINUSES

- ▲ Useful options like printing out current date
- ▲ Good search facilities
- ▲ Range of printing options will fit most stationery
- ▼ Data needs an entire disc to itself
- ▼ Data entry is slowed by constant returning to main menu

### LOCOSCRIPT 2

£29.95 (plus VAT) • Locomotive Software 0306 740606

As bundled with new 9512, the new version of everyone's first word processor. If you know how LocoScript 1 works, you'll have minimal relearning to do, and it puts right (almost) all the defects of the old version at a rock bottom price. Greek and Cyrillic alphabets, and even lets you define up to sixteen characters of your own design.

#### PLUSES • MINUSES

- ▲ 'Find page' command makes moving around faster
- ▲ Superb range of foreign accents and symbols available
- ▲ Can now drive daisywheel and other printers
- ▲ Has DISCKIT's formatting and copying built into it
- ▲ New 300-page manual
- ▼ Mailmerger and spelling checker not included
- ▼ Inconvenient for regular CP/M users
- ▼ Still no word counter!
- ▼ Still slow at Find, Exchange and scrolling

### LOCOSPELL

£24.95 (plus VAT) • Locomotive • 0306 740606

The ultimate spelling checker for LocoScript users. It is run as a simple menu choice while you are editing a document normally, and you can check either an entire document or only a paragraph. When it finds an error, it suggests a correction. Reasonably fast, given LocoScript's inherent sloth.

#### PLUSES • MINUSES

- ▲ Runs totally from within LocoScript
- ▲ Can do small sections of a file
- ▲ Suggests alternatives for misspelt words
- ▲ Reformats the text as it makes corrections
- ▲ Provides the much-missed LocoScript word counter
- ▼ Can't remove spellings you don't like
- ▼ The manual gets bogged down sometimes
- ▼ Slow at scrolling the dictionary window

### LOCOMAIL

£29.95 (plus VAT) • Locomotive 0306 740606

As a mailmerger for LocoScript, it's difficult to see how anything could be better than this. It runs directly from LocoScript, and can process any LocoScript commands. Has many advanced features and is highly recommended for all LocoScript users.

#### PLUSES • MINUSES

- ▲ You don't have to run it from CP/M
- ▲ Can print any LocoScript text formatting commands
- ▲ Can automatically rejustify paragraphs after insertion
- ▲ Can insert numeric calculations into letters
- ▲ Can read data from non-LoCoScript (ie. ASCII) files
- ▲ Large manual, with example files on disc
- ▲ Powerful selection procedures – like a database
- ▼ Need separate program to sort and filter addresses before a print run

### PROSPELL

£29.95 • Arnor • 0733 68909

A stand-alone spell checker for use with almost any wordprocessor that runs on the PCWs. Reads LocoScript, WordStar and ASCII files, and allows you to make corrections directly, view the context, change the dictionary etc. Specify which machine when buying.

#### PLUSES • MINUSES

- ▲ Checks LocoScript and WordStar documents directly.
- ▲ Displays the context of a suspect word
- ▲ Can edit misspellings directly from Prospell
- ▲ Anagram and crossword solvers too
- ▼ Processes files of 15K or more in sections

### NEWWORD II

£60.83 (plus VAT) • NewStar Software • 0245 265017

NewWord exploits the WordStar market by doing the same job better. It uses much the same key commands as WordStar and will even edit documents prepared under WordStar. Comes with a spelling checker, and the on-screen help is slightly better than WordStar's, though the keystrokes are still as obscure

#### PLUSES • MINUSES

- ▲ Does everything WordStar does, even reads WordStar files
- ▲ Spelling checker included
- ▲ Can un-erase words and lines
- ▲ Onscreen help better than WordStar's
- ▲ Full reformatting of text within mailmerger
- ▼ Weak on use of keypad and printer support
- ▼ Like WordStar, formatting troubles and obscure commands

### LABEL PRINTER

£25.00 • Microdraw • 0622 685481

Very similar program to Easy Labeller if not quite as powerful. Usual features of a labeller and you can store comments with each label's data.

#### PLUSES • MINUSES

- ▲ Menus simple – easy to get the program going
- ▲ Fast data entry
- ▲ Can store comments with each entry
- ▼ No import or export of data
- ▼ Data needs an entire disc to itself

### LOCOKEY

£14.95 (plus VAT) • Locomotive Software • 0306 740606

This successor to LocoChar is a keyboard customiser which means that any key can be made to produce any letter. The program will reproduce any one of the sixteen LocoChar-defined characters.

#### PLUSES • MINUSES

- ▲ Enables customisation to any distribution of keyboard letters
- ▲ Handles any combinations of accent and character
- ▲ Is fun and easy to use
- ▼ Will only be of limited use

### ANSIBLEINDEX PLUS

£34.95 • Ansible Information • 0672 62576

The upgraded version of the LocoScript document indexer. Type in your LocoScript document as normal highlighting the words to be indexed with a LocoScript (+RV) code. The program will then compile an alphabetical list of entries complete with the page number on



which they appear. A friendly, useful little package.

#### PLUSES • MINUSES

- ▲ Don't need to convert files into ASCII files
- ▲ Word counter also included
- ▲ Runs with both LocoScript 1 and 2
- ▲ One index can be created for a series of documents
- ▲ Indexes can be edited on screen
- ▲ Index entries can be inverted; instead of 'mutton pie,' for example, 'pie, mutton.'

## ACCOUNTS

'Accounts' covers far more than just the balancing of income and outgoings. Many of the programs are specific to some application, and they range from the simple to the extremely complex, with prices to match.

### VITAL PROCESSOR SERIES

£39.95 each • Vital Software  
0732 810330

#### EASY TO USE

Series of three programs designed to help you look after your money and your assets. The Savings Processor is ideal for someone with a portfolio of stocks and shares; it tells you your 'net worth' like a balance sheet. The Insurance Processor helps you make an inventory of all your possessions and put a value on them, while the Income Processor helps you keep tabs on your incomings and outgoings.

#### PLUSES • MINUSES

- ▲ Income Processor allows you to budget efficiently
- ▲ Insurance Processor can complete inventories room by room
- ▲ Savings Processor is a fast and efficient way of keeping track of share values
- ▼ You have to be keen to do all the research
- ▼ It can be time-consuming
- ▼ With the Income Processor, it's difficult getting all the information you need from the manual
- ▼ It's not always clear how some of the operations work

### DIGITA BUSINESS CONTROLLER

£69.95 • Digita International  
0395 270273

#### EASY TO USE

Not a full accounting system, but a very easy-to-use package with an excellent manual. Nominal ledger already set up and you can be up and running in minutes. No aged creditor/debtor lists can be produced. Now upgraded to include VAT handling procedures, so it's very good value for small business.

#### PLUSES • MINUSES

- ▲ Delight to use with a very good manual
- ▲ You can get the system working in minutes
- ▲ Financial ratios can be included in reports
- ▼ No facility for producing aged debtors/creditors list

### BOOK-KEEPING AND ACCOUNTS

£69 (with invoicing, £80.50; with invoicing and stocks, £92) • Manx Tapes • 0624 813071

Recently updated suite of programs advocating a very traditional style of double-entry book-keeping. Useful demonstration disc also supplied with more than 200 example accounts.

#### PLUSES • MINUSES

- ▲ Solid, traditional approach to double-entry book-keeping
- ▼ Program doesn't make full use of the PCW
- ▼ Screen prompts not always that helpful
- ▼ Written in BASIC, so prone to sluggishness

### MONEYWARE ACCOUNTS

£249.00 (plus VAT) • Compact Software Ltd  
0628 777456

Another very large integrated package supplied on several discs and consisting of sales, purchase and nominal ledger together with invoicing. The package is available on much larger micros, and since the format in which data is produced is the same as on PCWs, the system is particularly suitable for users planning to upgrade their hardware at a later date.

#### PLUSES • MINUSES

- ▲ Audit trails are an auditor's dream
- ▲ Data can be used in WordStar, Multiplan or SuperCalc 2
- ▲ Superb prepayment facility
- ▲ Can run a number of companies separately
- ▲ Easily transported to bigger computers
- ▼ Lots of disc swapping necessary

- ▼ Can be slow to use – it runs in Mallard Basic
- ▼ Quirks in cash allocation routine and account code system

### M.A.P. INTEGRATED ACCOUNTS

£249+VAT • MAP Systems  
061 624 5662

#### POWERFUL

This is a very powerful package moved onto the 1000 at a fraction of its cost on larger micros. The size makes it a little cumbersome to use, but apart from that there are very few significant problems. The integrated suite includes the same five modules as Camsoft, but they are supplied on four sides of disc, making it effectively impossible for the software to be run as an integrated system on an unexpanded 8256.

#### PLUSES • MINUSES

- ▲ A very comprehensive and professional package
- ▲ Very good audit trails
- ▲ Sales/purchase ledgers can run over different periods
- ▲ Facility for handling prepayments and accruals
- ▲ Able to print full management accounts
- ▼ The size of the programs means lots of disc swapping
- ▼ All normal responses need to be in upper case

### SIMPLE ACCOUNTS II

£79.00 (plus VAT) • Cornix • 0234 219969

The perfect accounts package for the small business by virtue of its simplicity of operation, and the limitation of its features to the essentials. Features include a useful cross-reference facility to collate expenses on individual contracts. Very comprehensive VAT section.

#### PLUSES • MINUSES

- ▲ Simple, easy-to-use program
- ▲ Can correct errors
- ▲ Keeps track of debtors and creditors
- ▲ Well-written manual
- ▲ Useful search facility

### CAMSOFT PSIL

£180.14+VAT • Cambrian Software • 0766 831878

Consists of five integrated packages: Sales, purchase and nominal ledgers, invoicing and stock control. In terms of sophistication it falls somewhere between the Sagesoft package and the larger systems from MAP and Compact. But it's easier to run than the larger packages since all the software can be squeezed into the M drive. Good package for a small company.

#### PLUSES • MINUSES

- ▲ Already set up for 8256 or 8512
- ▲ No need for pre printed stationery
- ▲ Excellent sort and search facilities
- ▲ Invoices shown on screen as you create them
- ▼ Constant need to input full five-digit account codes
- ▼ No final accounts reports available on nominal ledger
- ▼ No facility to run the ledgers in different accounting periods

### INBUSINESS

£160.00 • Cavalier Software • 049 264 1548

A comprehensive integrated package. Comprises 'Intact' accounts and 'Instock' stock control, available separately for £59.95 each. Well designed, easy to run and powerful enough for most businesses.

#### PLUSES • MINUSES

- ▲ Other packages (eg: 'Telead' address book) can be added
- ▲ Comprehensive range of features when used as a package
- ▲ Sophisticated pricing and order features in Instock section
- ▲ Flexible accounts, traps most mistakes, useful summaries
- ▲ Interesting forward planning facility in stock control
- ▲ Manual gives you a confusing number of options

### SMALL BUSINESS ACCOUNTS

£60.83 (plus VAT) • NewStar • 0245 265017

Using the split-screen method, the prompt-driven program leads you through the hazards of double-entry book-keeping as painlessly as possible. Again, very useful demonstration files supplied with the program. It also handles VAT easily.

#### PLUSES • MINUSES

- ▲ Excellent system of screen prompts
- ▲ Good demonstration files
- ▲ One of the easiest double-entry systems for the novice
- ▼ Manual is really for the PC

### SAGE POPULAR ACCOUNTS

£87 • Sagesoft • 091 2131555

An integrated accounts package consisting of purchase, sales and nominal ledgers. For another £50 you can buy Accounts Plus which also has invoicing and stock control. Aimed at small companies with the emphasis on ease of setting up. But a number of limitations, eg. the package cannot cope too easily with rapidly increasing numbers of customers and suppliers.

#### PLUSES • MINUSES

- ▲ Clean, tidy and logical screen layouts and menus
- ▲ Easy to set up and use with excellent documentation
- ▲ Good audit trails and VAT reports

- ▲ Can produce formatted trial balances
- ▼ Restrictive account numbering system
- ▼ Only single Nominal ledger and VAT analysis per item
- ▼ Does not cater for settlement discounts
- ▼ Won't print remittance advice slips
- ▼ Cramped on 9512 printer – need 17 pitch daisywheel

### M.A.P. PAYROLL

£199+VAT • MAP Systems • 061 624 5662

#### PLUSES • MINUSES

- ▲ Can amend and re-run at any stage (even after printing)
- ▲ Cash analysis is broken down into departments
- ▲ System prevents re-use or amendment of leavers
- ▲ Can hold up to 40 standard hourly and weekly wage rates
- ▼ No SSP calculation facility (but can record all amounts paid)
- ▼ Programs necessitate a lot of disc swapping
- ▼ No printed record of automatic tax code changes

### SAGESOFT POPULAR PAYROLL

£61 • Sagesoft • 091 2131555

#### PLUSES • MINUSES

- ▲ Any or all employees payroll can be rerun at any stage
- ▲ Full pay history available for all employees and leavers
- ▲ Calculates average pay for holidays etc
- ▲ Very easy to install
- ▼ Limited number of additions/deductions
- ▼ Doesn't print a list of cheques
- ▼ No analysis of additions/deductions

### COMPACT MONEYWARE PAYROLL

£199.00 (plus VAT) • Compact Software Ltd  
0628 777456

#### PLUSES • MINUSES

- ▲ Supplied with test data
- ▲ Facility to change employees tax codes following budget
- ▲ Can run payroll for several companies
- ▲ Program available for PC compatibles – data transportable
- ▼ Must be run from the master discs
- ▼ Needs input form and check calculation for each employee
- ▼ Once payslips are printed nothing can be changed
- ▼ Most expensive payroll program

### CAMSOFT PAYROLL

£60+VAT • Cambrian Software • 0766 831878

#### PLUSES • MINUSES

- ▲ Full payslip displayed on screen, any item can be amended
- ▲ Facility for freehand narrative on any payslip
- ▲ Uses M drive for programs to speed operation
- ▲ Built in on-screen help facility
- ▲ Search-sort routine for output to screen, printer or disc
- ▲ Uses alphanumeric employee codes
- ▼ Screen menus a bit untidy and sometimes difficult to follow
- ▼ No listing of cheques

### CHECK ACCOUNT TWO

£14.95 • Molesoft • 0372 275053

Written specifically to keep track of personal household accounts. Can store the details of up to four different accounts per disc, records all withdrawals and deposits and will allow an inspection of the current state of any account at any time. It also reveals both the minimum and maximum figures to which the balance has either sunk or risen over previous or current months. Also incorporated are comprehensive interest-calculation options. A solid, competent package.

#### PLUSES • MINUSES

- ▲ No double-entry book-keeping or VAT returns to wrestle with
- ▲ Very easy to use
- ▲ Carries last month's spending levels forward into this month
- ▲ Tiered interest rate option available

### EASI-ACCOUNTS SYSTEM

£23.95 • Arctan Computer Ventures 1 Foxwell Square, Southfields, Northampton NN3 5AT

Another PCW accounts package this time for the small business man or the very organised home user. Works on the traditional system of ledgers with up to 500 entries (or individual transactions) allowed per ledger.

#### PLUSES • MINUSES

- ▲ Comprehensive List and Search facilities
- ▲ Manual assumes you know nothing about accounting and is, on the whole, well-written
- ▼ Not a particularly easy package to use
- ▼ You would have to be exceptionally well-organised to use it



## MONEY MANAGER PCW

£49.95 • Connect Software Ltd • 081 743 9792

This accounting package has been designed for individuals, small businesses and clubs – anyone who might find a larger accounting package daunting. The program concentrates on income and expenditure, each file covering a 12-month period with up to 500 entries per month.

### PLUSES • MINUSES

- ▲ Up to 20 different kinds of accounts are catered for
- ▲ Up to 50 transaction codes help categorise income and expenditure
- ▲ Needs little computer or accounting expertise
- ▲ Information can be displayed in the form of a bar or pie chart
- ▼ Too limited for bigger businesses
- ▼ Over-featured for domestic use

# UTILITIES

Utilities is a broad category, which tends to contain all the software that won't fit elsewhere. In practice, this leads to two main functions – programs aimed at unusual applications, and those which perform useful and varied 'housekeeping' tasks.

## 2 IN 1 (Version 2)

£29.95 • Moonstone Computing • 041 941 3120

A set of very useful utilities aimed mainly at PCW to PC/MSDOS file transfer. It also has the ability to manipulate PCW files and discs. Sometimes a little on the slow side (because of the different systems it is copying from and to), it is still an excellent way of carrying out the functions, and is the only package that collects all these functions under the one roof. On the other hand, the formatting, which comes with a verify option, is very fast. In addition, it is extremely easy to use, and very user friendly – with a number of features which make it far more amenable than the original CP/M commands.

Range of features	4/5	Ease of use	5/5
Documentation	4/5	Performance	5/5
8000 Plus Value Verdict 18/20			

### PLUSES • MINUSES

- ▲ Easy to use
- ▲ Formats very quickly
- ▲ Good documentation
- ▲ Not too expensive
- ▼ Files not displayed in alphabetical order
- ▼ Copying is slow

## XFORMAT2

£9.95 • Moonstone Computing • 041 941 3120

A handy utility to provide more space on a disc. Space is created during disc formatting; the program is used in conjunction with CP/M, and gives extra room on both A & B drive discs.

### PLUSES • MINUSES

- ▲ 19k extra for A drive discs
- ▲ 78k extra for B drive discs
- ▲ 32 extra A drive entries
- ▲ Very cheap for the benefits provided
- ▼ Can't copy and format at the same time
- ▼ 4k minimum blocks in B drive

## FOREWORD

£44.95 • Software Imperative • 0225 425315

A text/ideas pre-processor, essential for anyone in the business of producing lengthy, structured pieces of work. You can build your document, moving & inserting blocks with just one key-press (no block definition required). Very fast wordcounts and Find and Replace searches of either 'hidden' or 'shown' text units. Drop down menus make usage very easy.

### PLUSES • MINUSES

- ▲ Quick and efficient and easy to use
- ▲ Versatile Save options
- ▲ Printout facility
- ▲ Works with 'foreground' option

## PCW TOOLKIT

£24.95 • Moonstone Computing • 041 941 3120

A user-friendly data recovery package for the PCW. Provided you can find the contents of the damaged file, roll out a new one, sector by sector, on M using PASTE.

### PLUSES • MINUSES

- ▲ Perfect for the complete novice
- ▲ Clear, confidence-boosting manual
- ▲ Can recover data varying in amounts from a few bytes to a complete disc.

## PRO-PERFORMER

£59.90 • Electromusic Research

0702 335747 • 8000s only

The only real musical add-on for the PCW. Easy to use software runs on CP/M, has a wide variety of powerful features and is icon-driven. Sophisticated recording facilities and the program will allow you to save compositions as tracks, songs or performances. Ideal for pop and classical musicians.

### PLUSES • MINUSES

- ▲ Icon-based screen
- ▲ Can record lines independently or in an arrangement
- ▲ Punch-in editing facilities
- ▲ Facility for slow recording and fast playback
- ▲ Step-time recording for strict in tempo lines
- ▲ Tracks can be looped (made to repeat)
- ▼ Manual glosses over arrangements
- ▼ Can't edit notes individually
- ▼ No musical notation anywhere

## JOB ESTIMATING & PRODUCT COSTING

£99.90 (plus VAT) each

Cornix Software • 0243 219969

Both programs aim to provide help to small businesses by keeping track of costs. You break down the product you're costing or the job you're doing into a series of costing lines – recording quantity and price per component. Program analyses profit margins and can produce customer printouts.

### PLUSES • MINUSES

- ▲ Excellently-written manuals
- ▲ Simple and robust to use
- ▲ Changes in material costings instantly reflected in all quotes
- ▲ Neat way of doing on-the-spot quotes
- ▼ Only suitable for small to medium-sized businesses
- ▼ Can't add new components to a description

## TEMPDISC 8.2

£21.00 • Thurston Techniques

0395 277496 • 8512s only

Disc of ready-made templates to be used inside LocoScript 2. All you have to do is find the particular template to suit your requirements and then fill in the details. Vast selection of borders is excellent for personalising labels and envelopes.

### PLUSES • MINUSES

- ▲ Has included files to complement LocoMail's invoicing facilities
- ▲ Very easy to use
- ▲ Vast range of templates available
- ▲ Not so good if you don't like lots of visual trimmings

## BRAINSTORM

£29.99 • Brainstorm Software Ltd • 0895 677845

A new improved version, reconfigured for easier use on the PCW. Works as an 'ideas processor'; you throw your ideas in any order and then use the program to rearrange them and impose a structure. Printed manual now comes with the package – a definite improvement on the old arrangement.

### PLUSES • MINUSES

- ▲ Quick and efficient and easy to use
- ▲ Encourages structured thinking
- ▲ Versatile; many different editing facilities
- ▲ Results can be fed into a word processor for polishing up
- ▼ Namesakes must be exact matches

## SUPER-INDEX

£14.95 • Festival Computing • 0274 613300

An indexer for LocoScript, which can provide not just the name, but also the 'Edit Identity' description of the file. Works with CP/M files, too. Can import data into LocoFile.

### PLUSES • MINUSES

- ▲ Screen as well as printer output
- ▲ Can be turned into LocoFile data
- ▲ Easy to use, and flexible
- ▲ Various specific forms of cataloguing
- ▼ Documentation poor

## FORMS BOX COMPENDIUM

£19.95 • Disc Design • 0473 625471

Fully compatible with LocoScript 1 and 2, this disc provides 70 different kinds of forms for home and office use. You can either fill them in on the screen, save and print them out or print them out and fill them in later. A solid, no frills product.

### PLUSES • MINUSES

- ▲ Very easy to use
- ▼ Will only print out on A4 size paper

## POOLS MASTER

£19.95 • Intraset Ltd • 02572 76800

This program helps you select the numbers to cross on your pools coupon taking its recommendations on the recent form of each team or simply on the basis of sequence prediction (going on the numbers which have provided draws in the past).

### PLUSES • MINUSES

- ▲ Very easy to use
- ▲ More accurate than the newspaper pundits
- ▼ Entering form results from week to week is tedious

## LOCOFONT I

£29.95 (plus VAT) • Locomotive Software (0306 740606)

8000s only

A selection of new fonts to help you break out of the standard LocoScript typeface. There's a very good selection of styles to choose from: 'handwritten' styles look very good as do the Copperplate and Script styles. The Roman and Standard fonts are more practical. The new characters are reproduced very well indeed. A further six fonts are available, including Old English and flowing script, on LocoFont II for £14.95.

### PLUSES • MINUSES

- ▲ Eight new fonts, one coming for free
- ▲ Each style supports all accents, characters, etc.
- ▲ Relatively cheap and easy to use
- ▲ Can break out of that one-pattern printout.
- ▼ Can't mix styles in one document
- ▼ Limitations of a 16 dot pattern means that the quality cannot be brilliant

## PS HEADINGS

£11.95 • Orb Systems • 081 690 8534

An updated version of the original product, with a major improvement in speed. A must for all Protext users who need to incorporate high quality large print for letter headings and so on. Facility to alter stylistic details such as shading, underlining and triple-strike printing.

### PLUSES • MINUSES

- ▲ Easy to use
- ▲ Range of styles
- ▲ Good manual
- ▼ Only one font available (although in two sizes)

## GILLIGAN'S GUIDE

£29.95 – 49.95 • NG Gilligan • 0629 56347

A geographic information program based on the Ordnance Survey system. Concentrates on a given area loosely 15 square miles; it will list all the places included on the map in alphabetical order with their grid references. Also gives you information about the sites and will locate them on the map. You can also interrogate the system so that it only gives you details and locations of sites of special interest.

### PLUSES • MINUSES

- ▲ A thorough, versatile and easy to use package
- ▲ System can be interrogated in a number of interesting ways
- ▲ Breaks sites down into areas of specific interest
- ▲ You can commission your own made-to-measure guides

## STAR TRACK+

£19.95 • Discovery Software • 081 455 9962

Update of earlier version. Fun and informative, the program allows you to plot on screen all the constellations (88 of them) and stars (about 600) recognised by today's astronomers, as well as (in the new version) the moon and planets. What is more, you can get the view from any point on the globe, and at any time from 1000 to 2999 AD. Lack of built-in printer option does seem a bit of a drawback, though.

### PLUSES • MINUSES

- ▲ Excellent manual with helpful practice exercises
- ▲ Very easy to use
- ▲ Cycle option transports you forward a month at a time so that you can chart the stars' progress
- ▲ Can change your position on the earth's surface
- ▼ No print option
- ▼ Screen display a little on the small side

## POCKET DATADATE

£19.95 • A4 Ideas • 0249 815082

An invaluable utility for those who crave date-related trivia. Fully operational under LocoScript 2, Pocket Datadate even prints filofax-sized text. The program is updated every 15 days.

### PLUSES • MINUSES

- ▲ Program recently updated
- ▲ Very informative
- ▲ Ideal for quizmasters
- ▼ Only works with LocoScript 2
- ▼ Documentation currently on disc



## budget accounts

everything you need for your home accounts

- The program really is very easy to use with highlighted menu
- Up to 12,225 entries per account on the 8512 and 1256 with
- up to twenty letters of comment
- You can maintain
- Up to two heading
- Single cat entries plu
- Printed stat
- Choice of n
- Superfast ds
- The program demonstration

### STOP PRESS

A review of budget accounts can be found in this issue of 8000 Plus.

Existing users of the program (v.1.9 and earlier) can upgrade for £3. If possible please phone first for information about transferring data etc.

...where, alter entries and delete entries. ...with a 12 page manual, and is supplied along with a ...which already contains 117 entries.

Budget Accounts which is available for all PCW's costs £19.95 inc.

For more information or to order the program you may either write or telephone ( please state model when ordering ).

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## PCW SUPERDOS

£29.95 • Encyclosoft • 0270 811890

Fills the gap between the friendliness of LocoScript and sparsity of CP/M. Has the ability to copy multiple files at once, and can back up an entire directory.

### PLUSES • MINUSES

- ▲ Printable 'notepad' facility
- ▲ Makes CP/M less daunting to use
- ▼ Need to leave SuperDOS for some functions

## FACTOTUM

£14.95 • Tudor Systems • 0622 861775

The combination of LocoScript 2, LocoFile and LocoMail will give you access to this extremely useful catalogue of information. As well as a diary, incorporating special date reminders, there is an address and telephone list, and a tax planner.

### PLUSES • MINUSES

- ▲ Works from LocoScript
- ▲ Very efficient letters section
- ▲ Easy to use
- ▼ Poor presentation
- ▼ Won't work with an unexpanded 8256
- ▼ Assumes knowledge of LocoScript

## SUPERZAP

Public Domain • Various suppliers

A disc editor with a difference – one key commands taken from adequate menus permit easy operation. Superzap allows you to examine both the structure and contents of the M Drive. Lack of print function is an irritating pitfall -this command is even disabled in CP/M

### PLUSES • MINUSES

- ▲ Very easy to use
- ▲ Simple one key commands
- ▲ Menu driven
- ▲ Fast 'find' function
- ▲ No copier
- ▼ Numbers can only be entered in hex

## DATADIARY

£19.95 • A4 Ideas • 0249 815082

More PCW-generated diary inserts for use at home or in the office. The program works from within LocoScript so you can make use of all LocoScript 2's text and style enhancements. Inserts feature year to a page calendars, month at a glance planners and page a day formats. Now includes dATAWEEK – a fully indexed week-to-a-page LocoFile application.

### PLUSES • MINUSES

- ▲ Buy it at any time of the year and you will be supplied with next 12 months' supply
- ▲ Now includes the dATAWEEK package
- ▲ Pre-prepared 9512 version available
- ▲ A solid, no-frills product that's easy to use

## INVESTOR II

£39.95 • B & BB Software • 0437 721690

Excellent update of what was already a good program. Designed to record and analyse the ups and downs of up to 600 shares on the stock market. From the trends displayed by these the health of the whole market is calculated, and future moves predicted. Your own shares are included, of course, and given prominent treatment; you are given advice on what to do with them. A very good investment all round!

### PLUSES • MINUSES

- ▲ Records share-holdings, dividends and cash accounts
- ▲ Dividend printout for tax purposes
- ▲ Four methods of share price analysis
- ▲ Unique ability to calculate capital gains tax liability
- ▼ Graphs are small
- ▼ Minor shortcomings in manual

## PERSONAL TAX PLANNER

£24.95 • Digita International • 0395 270273

Simple program which asks you all the questions relevant to your year's tax affairs, and prepares your tax return claim (or bill!) Can, for example, find out whether married couples would be better assessed separately or not. Personal Tax Planner is updated every year – look out for the most recent version following March's budget.

### PLUSES • MINUSES

- ▲ Simple to use
- ▲ Needs a minimum knowledge of the tax law
- ▲ Forces you to keep your tax details in one place
- ▼ Limited application – might only use it once a year
- ▼ Program updates (for a new allowance level) cost £10

## KNIFE PLUS

£19.95 • Hisoft • 0525 718181

An essential tool for retrieving data from corrupted discs. Knife Plus will copy all uncorrupted sectors on to a fresh disc which you can then patch up without risking the original.

### PLUSES • MINUSES

- ▲ Copies all uncorrupted data from damaged discs
- ▲ If boot sector damaged, will copy good boot sector onto disc
- ▼ Requires some knowledge of basic disc structure
- ▼ Manual not written for beginners

## WISE ONE

£34.95 • Swallowsoft Publications • 0420 63793

An expert system – you input rules and information and Wise One becomes an 'intelligent' program which can, for example, do simple diagnoses according to symptoms you type in.

### PLUSES • MINUSES

- ▲ Power to be genuinely useful
- ▲ Elementary arithmetic
- ▲ Help screens can be set up for the user
- ▼ Obscure way of writing rules – need programming instinct
- ▼ Manual dry and academic

## FLIPPER 3

£29.95 • Software Imperative

0225 425315 • 9512/8512 only.

An even stronger version of an invaluable PCW tool. Given the right amount of space, you can flip between 8 different environments, picking up each in exactly the same place as you left it. Menu-driven for greater user comfort.

### PLUSES • MINUSES

- ▲ Now boots your machine, then adds environments
- ▲ Can flip between environments in as little as 2 seconds
- ▲ Very good documentation
- ▲ Works with most CP/M programs, LocoScript and BASIC
- ▲ Can 'save' current environments to disc
- ▼ Be careful of state of printer and disc drives when flipping.

## SUPER TYPE II

£14.95 • Digita International • 0395 270273

A program for users of LocoScript and CP/M programs, which modifies the fonts used by the PCW printer. SuperType has 4 'business' and 'novelty' fonts. It works by directly altering the relevant files for LocoScript or CP/M, so you only need run it once – after that, the new chosen font is available.

### PLUSES • MINUSES

- ▲ Once installed, you can totally forget it's there
- ▲ Genuinely useful range of fonts available
- ▲ All LocoScript's print size and style options still work
- ▼ You can't mix different fonts in the same document

## DAATAFAX

Basic version £29.95 (with Microfile £39.95/with mouse

£69.95) • Kempston Data • 0234 855666

Used with personal ring-binder, it helps you keep track of names, addresses and appointments. Prints out data in a form that will fit the average organiser.

### PLUSES • MINUSES

- ▲ Flexible and easy to use; saves buying inserts
- ▼ Not very sophisticated: keeping it up to date is tedious

## DHCP 12-TRACK SEQUENCER

£89.99 • DHCP • 0440 61207

Add-on 'recording studio' for the PCW, consisting of MIDI interface and software. 12-track polyphonic capacity

### PLUSES • MINUSES

- ▲ Fun to use
- ▲ Can cope with quite advanced instruments
- ▲ Cheaper than its competitor
- ▲ Tracks can be bounced to enable several tracks to all be put into one
- ▲ Looping can start/end at any bar
- ▼ Manual is skimpy
- ▼ No editing possible without re-recording whole tracks

rather than text, simply because text can usually be imported from a word processor in an already finalised state, to have its appearance rather than its content adjusted.

## THE COMPOSER'S PEN II

£87.33 (MusicPad £23.44) • Composi Software

0952 595436

A sophisticated program which allows you to write musical manuscripts, complete with time signatures, key signatures and any other notation you require. Changes to the manuscript can easily be accomplished, and it can even transpose music into different keys. A vital tool for the composer of every kind of music. MusicPad is the cut down version.

### PLUSES • MINUSES

- ▲ Good print quality
- ▲ Allows multi-part compositions
- ▲ Easy to use
- ▲ Complete range of musical notation
- ▲ Transposes from key to key
- ▼ Slow in use

## THE DESKTOP PUBLISHER

£81.95 (including mouse and interface) • Database

0625 859444

Tremendous value for money. Graphics and text boxes can be easily moved around and page layout is clear.

You can edit text from within the program, using LocoScript-like commands to set bold and italics.

Good range of fonts and graphics, too.

### PLUSES • MINUSES

- ▲ Text editor allows you to edit articles to fit the space easily
- ▲ Boxes and general layout easy to manipulate
- ▲ Works with three mice, but fine with the keyboard alone
- ▲ Good range of fonts and graphics, and you can design your own
- ▼ Can't fix size of text boxes – they expand to take the text
- ▼ Headlines can look a bit jagged

## MICRODESIGN II

£62.00 • Creative Technology • 0889 567160

The ultimate DTP package for sheer printout quality; Creative Technology have treated words and graphics as being equally important, hence the program's 'integrated page processor' label. Runs on all three machines with high quality results.

### PLUSES • MINUSES

- ▲ Has full 24-pin printer compatibility
- ▲ Easy and fun to use
- ▲ Excellent text-editing facilities

## LATE EXTRA

£19.50 • Exemplar Designs • PO Box 683, Bath, BA1

1XU

A Stop Press add-on consisting of a collection of 11 fonts that cover the range of type styles and sizes needed to create a balanced page.

### PLUSES • MINUSES

- ▲ Good range of 11 complementary fonts
- ▲ Can adapt template for own use
- ▲ Time-consuming
- ▼ Text needs reducing for best results

## Next Month

The guide continues with the categories of DATABASES, EDUCATIONAL SOFTWARE, COMMUNICATIONS and PROGRAMMING LANGUAGES, to be followed the month after by SPREADSHEETS, GRAPHICS and GAMES. Then it's back to this month's topics again. We intend to maintain this as THE authoritative guide to PCW software, so if you know of any significant omissions, please let us know.

# DTP

Desk Top Publishing packages combine the manipulation of both text and graphics. In reality, they tend to concentrate on the development of pictures



*The definitive guide to desktop publishing with the PCW*

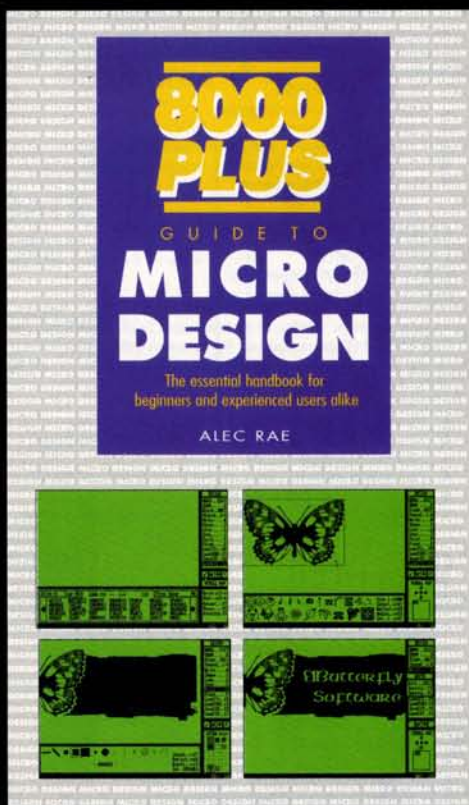
# 'THE 8000 PLUS GUIDE TO MICRODESIGN'

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Important areas covered by the book include:

- introduction and how to use the program
- graphics and drawing features – clip art, scanners, digitisers



- headline text – choosing fonts, sizing and positioning on the page
- body text – preparing and editing text
- newspaper format – page layout and design.

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# Tipoffs

## Get yourself out of a hole with Tipoffs!

Feeling green in LocoScript? Problems to iron out in BASIC? Can't get the ins and outs of CP/M? Don't let your PCW drive you away to play golf - instead, come to Tipoffs, the pages that answer all your questions to a tee. Over the next five pages the eagle-eyed can find tips on LocoScript, LocoMail, Micro Design, Protext, BASIC and much more wedged in besides. If you have a question, however rough, ask us and we'll give it our best shots; and if you have any good tips a little birdie told you, let us know - you could win hard cash! This month L Stokes of Leicester wins £30 for facts every letter-writer should know. Send your letters to Tipoffs, 8000 Plus, 30 Monmouth St, Bath BA1 2XF. It's Freepost

## Graphic point

Is it possible to produce line graphs in LocoScript, to show sales figures, for example? Your Tipoffs book shows how to produce bar-charts but does not mention line graphs.

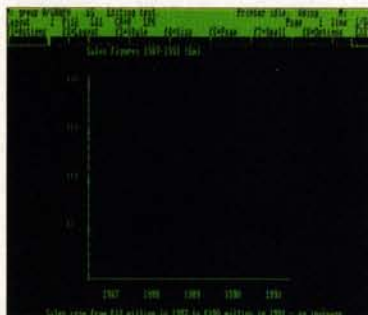
**K Perryman, London**

**8000 Plus:** No. If you want to include a line graph in a Loco document, probably the best thing to do is to put the axes in the document and then, after printing out, just put in the lines with a pen and straight-edge.

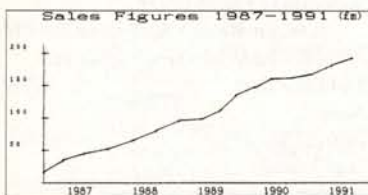
To get the vertical axis, select half-line spacing with `[+]/s 1/2 [ENTER]` and use the vertical bar symbol (`|`). This is on the 9512 keyboard; on other PCWs it will be something like `[EXTRA]` full stop or `[EXTRA]`. At the bottom of the vertical axis, deselect half-line spacing with `[-]/s` and use underline (`[+]/ul`) to make the bottom axis.

The graph on screen should be twice as high as you want it to look on the final printout.

If you have a PCW8256 or 8512, numbers running along either axis will look best in a small pitch and maybe bold superscript (put `[+]/b [+]/p17 [ENTER]` `[+]/sr` before each number and `[-]/b [-]/p [-]/sr` after). Alternatively, LocoScript 2 has some small numbers



LocoScript can't do line graphs, but it can at least put in axes for a graph that you can fill in after printout with a pen and ruler.



The printout with added lines. Note how the half-line spacing makes sure the vertical bars join up, but also means the graph is half as high as it appears on screen.

already built-in - which you can produce by pressing `[SHIFT] [ALT] [f7]` and the number. Return to normal with `[SHIFT] [ALT] [f1]`.

## In passing

I fear your advice to Graham Wallis (June, p81) is too brief.

First he needs to format (or 'initialise') the disc directory to CP/M Plus format in order to take passwords. DISKBIT and LocoScript 2 only produce CP/M 2.2 format discs which do not allow passwords. So first he should type:  
`pip [RETURN]`  
and then at the asterisk type  
`m:=a:initdir.com [RETURN]`

`m:=a:set.com [RETURN]`  
Press `[STOP]` to leave PIP and then put a freshly formatted disc in the drive and type either,  
`m:=initdir a: [RETURN]`  
or alternatively,  
`m:=initdir b: [RETURN]`  
according to the drive the disc is in. Confirm this with `y` when asked. INITDIR will mark the directory to take passwords. Incidentally, you often don't need to wait for the password

## BASIC error

After saving a large BASIC program I couldn't reload it next session - I just got the error 'Memory full'. So how can I edit it to make it shorter!

**P Dudman, Chatham, Kent**

**8000 Plus:** BASIC only has a space of 30K or so to work in, and it can't take a listing of greater length than this. This is a characteristic of CP/M and is not affected by the memory size, so upgrading your RAM would do no good. The way to run very large BASIC programs is to split them into several listings (say one for each menu choice) and jump to one from another by the CHAIN command. Suppose, for example, you have a main menu-running program and five sub-programs called MENU1.BAS to MENU5.BAS according to five menu choices. Your main menu-running program might have a section like  
`100 a$=input$(1)`  
`110 if a$="1" then CHAIN`  
`"MENU1",,all`  
`120 if a$="2" then CHAIN`  
`"MENU2",,all`  
and so on. The `','all'` bit makes sure that all variables mentioned in both programs have their values kept when the transfer is made.

This doesn't help you edit down your oversized BASIC listing, however. Unless you saved it as ASCII (in which case you can edit it in LocoScript) you're stuck, I'm afraid. But you've been keeping backups, of course, haven't you...?

## Traction man

I have set up my PCW to print labels on 1 1/2 inch label stationery, but even though I have followed your instructions to the letter to set up labels, the printout is slightly out of kilter with the labels, with the result that the first address is properly positioned but successive addresses get nearer the top of the label until they do not fit on it. What is going wrong?

**M Darke, Birmingham**

**8000 Plus:** Try fitting the tractor feed. Its sprockets engage the holes to feed the paper in at the just right rate. The printer roller without the tractor feed won't be able to do this

## Tipoffs

### Code comfort

The list of codes produced by keys (May, p71) is not totally accurate for the keys `[EOL]` and `[LINE]` which actually produce a series of codes: `[LINE]` produces 6 then 2, and `[EOL]` 6 then 2 then 2. Tim Jones, Stockport, Cheshire

### Key fact

The Teqnique keyboard that replaces the standard keyboard on the PCW is very good but has one hassle - the placement of the 'Caps lock' key just above the left 'Shift'. It is very easy to hit the wrong one by mistake.

One solution is to shield the 'Caps Lock' key with a rigid, hinged cover - I use part of a cassette case and sticky tape, but anything similar will do. P Tillin, Belper, Derbys



## Getting slack

Here's a tip for Micro Design users who have trouble with the blank lines appearing on the first pass of the print head, probably due to slack in the printer mechanism.

If you place a single pixel about 4 or 5 pixels above the start of the page, it will take up the slack and be unnoticed on the printout.

Tony Breeding, Weston Super Mare

## Three in one

In connection with the tip 'Write on' in July's 8000 Plus, I have another way which enables you to do three things at once. I do not know if it works with every software package, but what you can do is fool the computer, both allowing write protection, saving of disc space and auto-booting. What you do is re-name the command file as Submit.com. For example, re-name Tasword.com to Submit.com. This saves 6k of space. Next, create an empty Profile.sub with nothing on it. If all is correct, you should have an auto-boot with write protection and extra disc space!

Andrew Truckle  
Devizes, Wiltshire

## I repeat...

You'll already know that if a key is held down in LocoScript it will produce a stream of characters - and the delay before the stream starts and the speed at which the stream is produced is determined by the 'key repeat rate'. Users of SID or 'The Knife' who wish to alter the key-repeat rate in LocoScript 2.28 may find this useful, particularly if they are learning touch

typing. In the file J228LOCO.EMS look for the sequences C8 0E 02 3A and 7F 0E 1F 21 (they are fairly close together). For maximum delay, change 02 in the first sequence to FF, and similarly change 1F in the second to FF. SID users note that byte 02 is at 8620 and 1F at 8723.

If both bytes are set to FF, LocoScript will wait 5 seconds before

repeating (instead of the usual 0.6 of a second) and with a further delay of 5 seconds between subsequent characters (this is usually 0.04 of a second). Try experimenting with intermediate hex numbers for different delays until you find the one that suits you best.

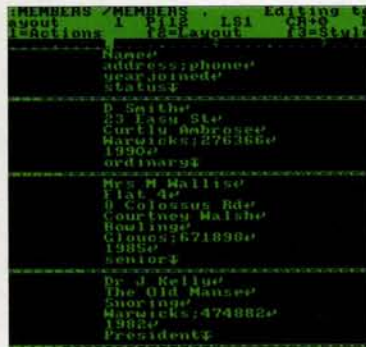
EJM Duggan, Guildford, Surrey

8000 Plus: Thanks for a useful tip

## Address lists

I have two address files in LocoScript - one which prints out addresses onto 1 1/2 inch labels, the other which has the same information but with additional personal details below each address and which is set up to print on continuous 11 inch stationery. It's very tedious having to change details on both files whenever an address is amended. Any ideas?

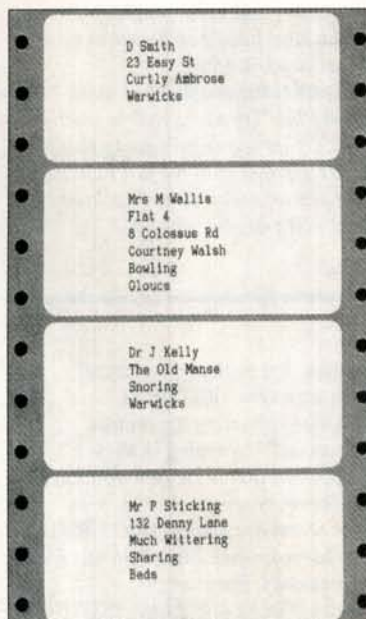
J Wall, Berkeley, Glos



A single, easy to maintain file of details like this...



...can be manipulated by this simple LocoMail routine...



...to produce printout on address labels. Alternatively...



...the same details can be manipulated by this simple LocoMail routine...

8000 Plus: What you ought to do is use just your bigger file - the one with the addresses and personal details - and use LocoMail commands to extract just the information you want for any given print run. That way you only have to maintain details on one file. If you don't have LocoMail installed in your version of LocoScript, the following routines won't work on your machine. If you have a PCW 9512, you already have LocoMail - otherwise you'll have to buy it from Locomotive Software on 0306 740606 for £29.95.

Here's an illustration of the sort of way LocoMail can be helpful. If your files aren't in this format, it shouldn't be too difficult to put them into a similar format, especially through judicious use of [EXCH].

Now, on the one hand there is a list of names-addresses-and-details that looks like this:

```
Name
address:phone
year joined
status
(new page)
D Smith
23 Easy St
Curtly Ambrose
Warwick;276366
1990
Ordinary
(new page)
Mrs M Wallis
Flat 4
8 Colossus Rd
Courtney Walsh
Bowling
Glouce;671898
1985
Senior
(new page)
Dr J Kelly
The Old Manse
Snoring
Warwick
1982
President
```

and so on. The new page is got by pressing [ALT] [RETURN]. This file is called MEMBERS, say.

For your address labels, start up a new file called LABELS consisting of just the following commands:

MEMBER	STATUS
D Smith	ordinary (joined 1990)
23 Easy St	
Curtly Ambrose	
Warwick	Phone no: 276366
MEMBER	STATUS
Mrs M Wallis	senior (joined 1985)
Flat 4	
8 Colossus Rd	
Courtney Walsh	
Bowling	
Glouce	Phone no: 671898
MEMBER	STATUS
Dr J Kelly	President (joined 1982)
The Old Manse	
Snoring	
Warwick	Phone no: 474882
MEMBER	STATUS
Mr P Sticking	honorary (joined 1991)
132 Denny Lane	
Much Wittering	
Sharn	
Beds	Phone no: 572882

...to produce more detailed information on continuous paper, six people to a page

```
(+Mail)Name(-Mail)
(+Mail)address(-Mail) [ALT]
[RETURN]
```

That (+Mail) is got by pressing [+ ] then m; (-Mail) is [- ] then m.

And for your list of names-addresses-and-details, start up another new file called DETAILS consisting of something like:

```
MEMBERSTATUS
(+Mail)Name(-Mail)(+Mail)status(-Mail) (joined (+Mail)year joined(-Mail))
(+Mail)address(-Mail) Phone
no: (+Mail)phone(-Mail) [ALT]
[RETURN]
```

When you want to print out a run of addresses on labels, load the printer up with the continuous tractor feed and the labels. In the disc manager, put the highlight bar over the file LABELS and press m for 'Merge'. Then highlight the file MEMBERS (because you're taking your data from that) and select 'Automatic'. Your labels are then printed out.

Similarly, to print out a run of names-addresses-and-details, load the





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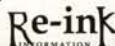
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printer with continuous paper. Highlight the file DETAILS in the disc manager, press m and then select MEMBERS as data. Choose 'Automatic' and print out. Make sure the print head is very near the top of the paper before printing.

## \* PAPER

You have to set certain details in the documents LABELS and DETAILS to make sure they print out correctly. LABELS needs to print out on pages of length 9 to fit on the 1 1/2 inch labels; DETAILS needs to print out on pages of length 11, 22 or 33 in order that you get a whole number (6, 3 or 2 respectively) of names on one sheet of 11 inch continuous paper. Here's how to do it.

LocoScript 1: Do this when setting up

both DETAILS and LABELS. Press [f7] [ENTER] then [f7] [ENTER] then [f7] and set the page length to 9 and the header and footer zones to 0. [EXIT] and [ENTER] back to the original document.

Before printing out, in the disc manager press [PTR] then [f1] selecting 'continuous stationery' with [+] and making the 'form length' 9 (for LABELS) (or 11, 22 or 33 as appropriate for DETAILS) and gap length 0.

LocoScript 2: You need to add two new paper types. In the disc manager, press [f6] 'Settings' and choose 'new paper type'.

Give the name as 'Labels' and set it to 'continuous' with [+], make the 'height' 9 and everything else 0.

[ENTER] and insert your startup disc in the A drive and when prompted choose 'write new settings to disc A'. Repeat for a new type called '6 to a page' which has height 11 (or '3 to a page' with height 22, etc.).

In the document LABELS, press [f1] 'Document setup' [ENTER] and then [f5] 'Page'. Select 'Paper type' with [ENTER] and switch this to 'Labels' using the cursors and [+]. Finish with [ENTER].

Now choose 'page layout' [ENTER] and set header and footer zones to 0 using the cursors and [+]. Finish with [ENTER]. [EXIT] [ENTER] [EXIT] [ENTER] back to the main document.

Repeat for DETAILS but choosing '6 to a page' as paper type.

## Hex quest

In the July issue of 8000 Plus, you had a very useful Tipoff from C McCullen (Write on, page 81), where SID was used to alter the submit.com file so that self starting discs could be loaded while remaining write-protected. Unfortunately, the HEX values to be altered were from the wrong area - with respect to SID, but to the right area with respect to DUMP! The DUMP output of submit.com shows the four areas and HEX-codes to be altered: 02a9 (code 32, change to 00) 02aa (code E8, change to 00) 02ab (code 0E, change to 00) 0ee8 (code 00, change to 0d)

These were the ones printed in the above issue. However, on my version, SID likes to be an order of magnitude higher than DUMP, so, to change these four HEX codes you must access SID at the following areas: 03a9 03aa 03ab 0fe8

Dr Colin Morrison, Edinburgh

## Some questions on BASIC

1. How can I make BASIC produce a list of files in alphabetical order instead of a random order?
2. How can I make the printer print out a character as I type it in, like a typewriter?
3. What do the commands WHILE and WEND do?
4. Can you recommend a decent BASIC manual?

Justin Lane, Harpenden, Herts

8000 Plus: 1. You can't - at least, not very easily, though I suppose it is quite possible to write a shortish BASIC program that will do it for you. Any offers from anyone?

2. Not as easy as it sounds. The following listing:

```
10 a$=input$(1)
20 if a$<>"$" then lprint a$; : goto 10
prints out whatever you type until you finish with a $ sign - but it waits until you hit a [RETURN] before it will print a line. Also you have to move down one line with [ALT]j or the lines overprint. The problem is that the printer needs a CHR$(13) before it will print a string and won't just do one
```

character at a time. Any ideas, anyone?

3. They repeatedly perform the action between them all the time the condition specified after the WHILE is true. For example, if you're waiting at a railway crossing, BASIC would say  
10 WHILE (the lights flash)  
20 (wait)  
30 WEND  
40 (cross over the crossing)

Here's a proper example. Suppose you are given a number and just want the last two digits - e.g. you want to turn 2546 into 46, 109 into 9, and 29 into 29. This routine will do it.

Note that if x is already under 100, nothing is performed - that is an important property of the WHILE function.

```
5 INPUT "x is";x%
10 WHILE x%>=100
20 x%=x%-100
30 WEND
40 PRINT "The last two digits are";x%
```

4. Yes: Program Your PCW by Ian Sinclair, published by Glentop Press

## More drive

I have an 8256 with only one drive. So how on earth in CP/M can I get a full directory of a disc using DIR.COM without copying DIR.COM onto the disc I want a directory of? I know I can just type DIR but this only gives bare-bones information. I want file sizes etc. which needs DIR.COM.

J Arthurson, Portland, Oregon USA

8000 Plus: You do have another drive on your PCW, a B drive - it just shares a house with the A drive. Put your CP/M copy disc in and type dir[full] B:[RETURN]. You will then get the prompt Please put the disc for B: into the drive and then press any key. Put the disc you need the full directory for into the drive, press any key and you will get the required result listed as drive B. The prompt in the bottom right will state Drive is B: - the next time drive A is needed you will be prompted to put the disc for A into the drive and press any key. This can be used for any program that needs all the discs to be available as soon as [RETURN] is pressed when any files that are needed from another disc are prefixed with B.

## Conventional tip

There are certain conventions regarding punctuation that are now virtually universal for word processed text. Some of this may be different to what you have been told is standard on typewritten copy.

\* Never use spaces to line up text on screen; use tabs instead. No word processed text should ever have more than one space in succession.

\* A full stop (.) is always followed by one space, not two. For example: Thank you for your enquiry. An information pack is enclosed.

is wrong, while Thank you for your enquiry. An information pack is enclosed. is correct.

\* Commas (,) semi-colons (;) and colons (:) are also always followed by a

single space. For example:

If you can come, we would be pleased to see you.

It is getting late; already December is upon us.

This is the problem: getting enough cash.

are all wrong, while

If you can come, we would be pleased to see you.

It is getting late; already December is upon us.

This is the problem: getting enough cash.

are all correct.

\* Abbreviated words do not take a full stop if the abbreviated version ends in the same letter as the full version. For example:

Mr Mrs Jnr Snr Dr

(and presumably Ms, which isn't an abbreviation of anything) and Cty (for 'County') Utd (for 'United') Ltd (for 'limited') etc. do not take full stops. However pub. (for 'published') Prof. (for 'Professor') tr. (for 'translated') etc. do have full stops.

\* The modern convention for treating initials in names or acronyms is not to use full stops. For example:

WH Smith; JS Bach; BBC 2; MCC; NALGO; ICI

\* Latin abbreviations take full stops, for example:

e.g. i.e. viz. etc. q.v. ibid.

L Stokes, Leicester

8000 Plus: Thanks; your letter, which I received this morning, is sure to be of help to writers everywhere.



## Born to run

How can I get BASIC to start up and run a program automatically, just by switching the PCW on and inserting the disc?

**Steve Gill, Narberth, Dyfed**

**8000 Plus:** Easy. Here's how you do it. Suppose you have a program called MENU.BAS that you want to be run automatically every time you switch the PCW on in the morning.

The first thing to do is to format a blank disc with DISCKIT; this will be your BASIC startup disc.

Now, run up CP/M by resetting the PCW (press [SHIFT] [EXTRA] [EXIT]) and inserting the CP/M copy disc. Then, follow these instructions:

1. At the A> prompt, type `pip` [RETURN]
2. Type `m:=a:submit.com` [RETURN]
3. Type `m:=a:j*.ems` [RETURN]
4. Type `m:=a:basic.com` [RETURN] (If you get error messages to any of these steps, repeat with your CP/M

master disc - not the disc currently used, which is an incomplete copy of the master).

5. Insert your disc holding the program MENU.BAS in the drive and type `m:=a:menu.bas` [RETURN]. Repeat this for any other files you want the startup disc to have.

6. Insert the blank disc into the drive. Type `a:=m:.*` [RETURN]. You should now see all the files above being copied on to the new disc.

7. Type `a:profile.sub=con:` [RETURN]

8. Type `basic menu` [RETURN] [ALT] z

(or, if you just want to go into BASIC and not run any particular BASIC program, type `basic` [RETURN] [ALT] z)

9. Press [SHIFT] [EXTRA] [EXIT] and the magic should now start working: you should find that the disc in the A drive will start up the PCW and put you into immediately into BASIC - and that useful menu program!

## Continuing story

Under the query 'Continuous question' (June's issue of 8000 Plus) you correctly said it was possible to amend the printer default settings by using SID.COM so that, for example, your amended version of CP/M will automatically select continuous printing when you start it up.

Many readers will be glad to hear that it isn't quite such an involved process.

The printer defaults are stored in the .EMS file as a 19 byte data area and can be changed with SID to any settings you wish.

**John Eggeling, Todmorden, Lancs**  
**8000 Plus:** If anyone familiar with SID (and we really do suggest that you have some prior experience) would like a copy of John's comprehensive details on how and where the printer default settings are stored in the .EMS file for PCW 8000 machines, send us an sae marked 'printer defaults'. Thanks very much John.

## On the button

One of the most annoying things about the PCW9512 is how easy it is to press the spellcheck 'grid' key in the middle of the cursors, and so go into a lengthy spellcheck! However, if you place a small button on the grid key, it alters the feel sufficiently to prevent you from pressing it. Paul Eisler, London NW11

You can stop a spell check in midstream, you know - just press [STOP] and then [STOP] again to confirm (or any other key to continue the spellcheck). So maybe the button isn't totally necessary. LocoScript's makers do think about things like this!

## Don't ASCII me

Can you explain what ASCII is, please?

**T Barnett, Bradford, W Yorks**

**8000 Plus:** Computers, such as your PCW, like to think of everything in terms of numbers. Any text file - prepared with LocoScript, Protext or whatever - is therefore treated by the computer as if it were a series of numbers. In LocoScript, for example, the letter A is seen by the PCW as character number 65; and the character for a half (1/2) is character number 143. ASCII is a standard way of numbering each character (it stands for the American Standard Code for Information Interchange) so that when you transfer a text file from one machine to another the text remains the same. Suppose you transfer a file from

your PCW to a typesetter's Apple Macintosh for page makeup; the A (character 65) comes across as A on the Apple Macintosh as A because character 65 (which is how it gets transferred) is still A on the Macintosh. We therefore talk about the 'ASCII code for A' as 65.

Unfortunately ASCII is very limited - only the letters a-z and A-Z, a few numbers and very basic characters (such as %&\* etc.) will have the same number on all computers you'll encounter. Exotica such as 1/2 will come across as something different on different machines if you transfer the file. In fact LocoScript files come across as gobbledygook because they're so non-standard; you have to convert a text file into an ASCII file (see the

Loco manual) before transferring it to another machine, but in doing so you clip it down to only a-z, A-Z etc. - and no formats or anything like italic/ bold/ underline commands!

Another problem with ASCII is that, being American, it has no code for £, causing all sorts of problems - if you see a sentence in computer-prepared text anywhere like 'this costs #35' you can blame ASCII.

Here's a list of the regular ASCII codes between 32 and 127. Note that the grave and tilde can't be put on top of any other characters, so they're of very limited use. Incidentally, a new souped-up version of ASCII is being prepared that assigns a code not just to our alphabet, but to everything - Hindi characters, Japanese syllabaries,

32 (space)	56 8	80 P	104 h
33 !	57 9	81 Q	105 i
34 "	58 :	82 R	106 j
35 # (or £ in some programs)	59 ;	83 S	107 k
36 \$	60 <	84 T	108 l
37 %	61 =	85 U	109 m
38 &	62 >	86 V	110 n
39 ' (apostrophe)	63 ?	87 W	111 o
40 (	64 @	88 X	112 p
41 )	65 A	89 Y	113 q
42 *	66 B	90 Z	114 r
43 +	67 C	91 [	115 s
44 ,	68 D	92 \	116 t
45 - (hyphen)	69 E	93 ]	117 u
46 .	70 F	94 ^	118 v
47 /	71 G	95 _ (underline character)	119 w
48 0 (zero with a slash)	72 H	96 ` (grave accent)	120 x
49 1	73 I	97 a	121 y
50 2	74 J	98 b	122 z
51 3	75 K	99 c	123 {
52 4	76 L	100 d	124   (vertical bar)
53 5	77 M	101 e	125 }
54 6	78 N	102 f	126 ~ (tilde)
55 7	79 O	103 g	127 0 (zero without a slash)

## Ins and outs

Pushed for space when printing on continuous stationery? No problem! Pinch one of those 'In, Out, Pending' trays off the secretary's desk, or buy one from any office suppliers.

Place this tray in front of the printer, upside down over the fanfold paper with the open end towards the printer. The unused paper is now pulled from inside the tray, while the printed pages fold neatly from the top. Capt. R Sawczyn, Lancaster



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## Quote, unquote

In my academic documents for my degree I need to indent sections of text (quotations etc.) using LocoScript 2. If I use [ALT] [TAB] it gives a neat indented left margin for the quote section, but it has to share the right hand margin with the rest of the document.

How can I get such a section indented on left and right hand sides?

**Steve Stickley, Stapleford, Notts**

**8000 Plus:** The answer is to define a special layout for your quotations.

Let's suppose you want your main text with margins at 10 and 85, not justified and in 12 pitch, and your quotations with margins at 20 and 70, in 15 pitch, and justified.

Here's what to do.

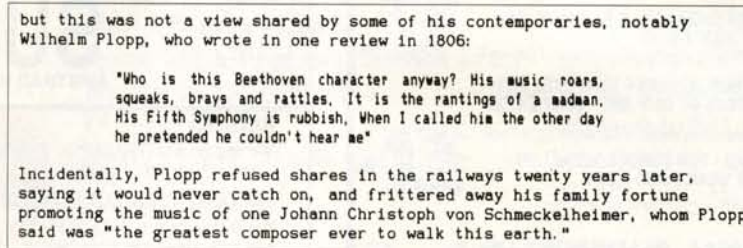
**LocoScript 2:** In the document, press [F1] for 'document setup' and [ENTER]. Press [F2] 'layouts' and select 'change stock layouts'. Select 'Layout 2' and [ENTER].

Set margins (using the cursors and [F1]) at 20 and 70 and any tabs you want using [F3]. Set the text to justified by pressing [F8] 'options' and putting a tick next to the 'Justify' option with the [+] key. Set the size to 15 pitch by pressing [F4] 'size' and using the cursors and the [+] key to tick '15'. Finally change the name of this layout to 'Quotations' by pressing [F7] and typing in the new name and [ENTER]. Finish with [EXIT]. Repeat the above steps to set the 'Main text' layout, putting the appropriate details under Layout 1 and calling it 'Main text'. [EXIT] and [ENTER] back to the main document.

At the beginning of the main text, put [+][L1] [ENTER] [RETURN] - you should see the words 'Main text' appear at the top left to show you're in that layout. At the beginning of each quotation section, type [+][LT2]



This sort of layout setup in LocoScript 2 means you can print out quotations very smartly. LocoScript even tells you the name of the layout you're in (top right) to make sure you're doing it right...



...and the printout can be very smart. This one uses justified 15 pitch for the quotations, margins at 20 and 70, with the main text unjustified 12 pitch set between 10 and 85.

[ENTER] [RETURN]. You see 'Quotation' appear in the top left and the text will now automatically take the right shape. Begin the next section of main text with [+][LT1] [ENTER] [RETURN] and so on.

**LocoScript 1:** This assumes that your document has the base layout set to the right details for the main text. In the document, before your first quotation press [F2] selecting 'brand new layout'.

Using the cursors and [+] key, select the appropriate details: pitch 15, justify ticked. The down cursor puts you into the ruler line.

Set the margins using [F1] and [F2] at 20 and 70. [EXIT] [ENTER] to the

main menu. Before each quotation, press [+][L1] [ENTER] [RETURN] and to resume the main text, press [-][L]. The printout looks very smart.

Obviously you can experiment with other layouts; if the styles you've chosen look wrong, just change a layout with the above procedure the text will reformat.

On a PCW9512, you will probably want to change the print wheel to a 15 pitch one for the quotations. You have to do this manually, by pressing [PTR] when the printout gets the appropriate place to temporarily stop the printing, changing the print wheel, and pressing [EXIT] to resume printing.

## Money talks

I have some lists of amounts of money stored in a Protext document in the following format:

J Smith  
£5.50  
M Thompson  
£10.75

and so on. Can I get Protext to total up all the amounts of money in a particular document automatically?

**K Legge, London N7**

**8000 Plus:** Yes, Protext can do anything! Suppose your document is called AMOUNTS. Make sure the file ends with an asterisk, so that the last three lines might look something like:

J Young  
£6.57

\*

Now make up a file called TOTAL on the same disc consisting of the following lines:

&name& &money&[TAB]Total:  
£&tot&

Load the file and print it to screen (with ps) or to the printer (with p, or pq for high quality).

The above routine reads each name in turn (the variable name) then the line with the pound sign (money) repeating (rp) until it finds a 'name' consisting of an asterisk (un). Then it makes the variable amt equal to money, but from just the second letter onwards - i.e. the variable amt is just a number, stripped of the pound sign.

Then tot adds the amount stored in amt to the running total. If you print the above file you will get something like:

J Smith £5.50      Total: £5.50  
M Thompson £10.75      Total: £16.25

and so on.

## No B...drive

The other day when I started up my PCW8512 I put in two discs in the drive as usual but when it came up LocoScript told me my B drive was not fitted. I restarted and everything was alright, but I am worried that my drive may be about to give out.

**P Andrews, Glasgow**

**8000 Plus:** If you happen to put the disc in the B drive at a certain point, the action of disc insertion appears to disengage the drive for a short time.

If this coincides with the instant when the PCW is checking to see if there is a B drive (between the horizontal startup bars on screen disappearing and the opening message of LocoScript, or CP/M, for that matter) you can fool the PCW into thinking the B drive isn't working.

This is only a temporary state of affairs, and although it's alarming initially, it's nothing to worry about: just restart the machine in the usual way.

## Get organised

Owners of personal organisers may be interested to know that many stationery stores such as Ryman's sell continuous paper that fits into a personal organiser. When the holed side strips are trimmed off the paper has holes already punched in it to fit the gripping rings of the organiser.

K Wells, Bristol

## Copy this

I am always reading that I have to make backups of all my important files. Does this just mean to keep copies, and if so, what is the easiest way of going about it (I use LocoScript 2.28)?

Mrs W Eastman, London

**8000 Plus:** Yes, 'backups' just means 'copies'. The idea is that if your disc fails (and LocoScript refuses to read it) you can use the backup copy you have (and then make another copy as an extra backup).

Keep a disc, separate from your normal work disc, onto which you copy every file you alter at the end of each working session. Use [F3] in the disc manager to copy the files you've been working on into the M drive, put your backup disc in the drive, and copy the files from the M drive onto the backup disc.



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
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


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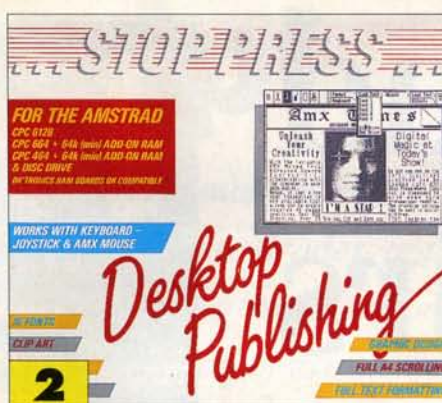
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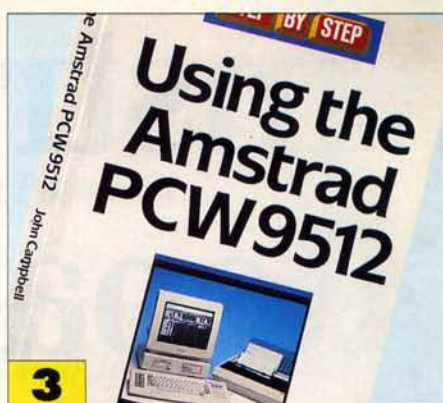
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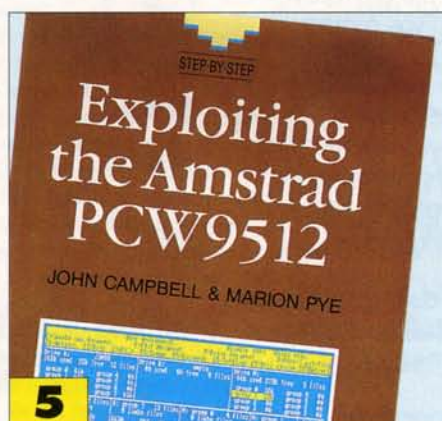
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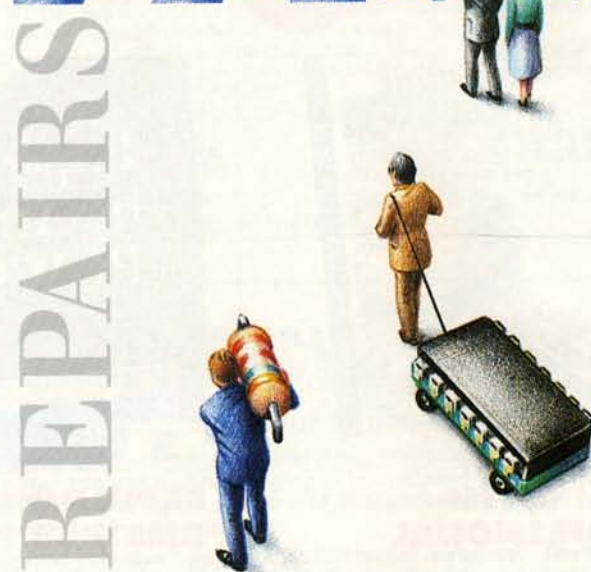
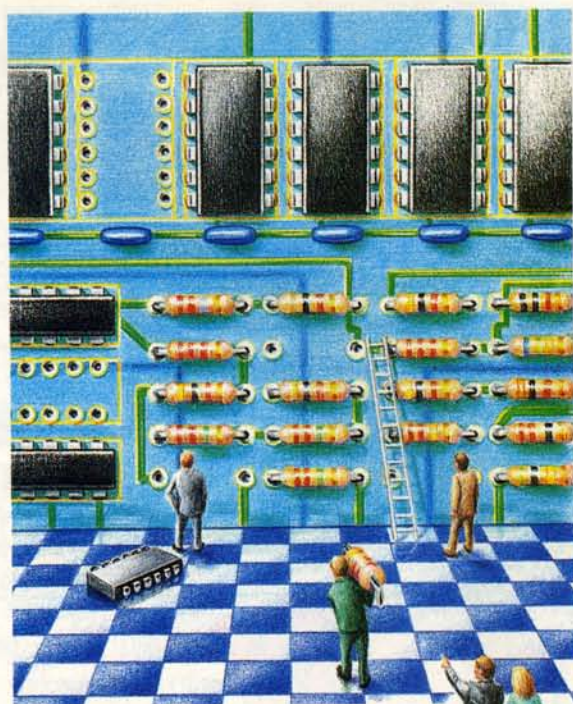
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# Postscript

*Time once again to hear your views on matters PCW - in Postscript*

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## Answering back

I would like to respond to the correspondence you have been featuring concerning printer support.

We supply all printer support as part of a single product because this makes it easy for our dealers to stock and so easy for our customers to buy. It also makes it easy to get the correct printer driver first time, with no chance of purchasing the incorrect disc with the subsequent cost of exchanging for the correct one.

Were we to split the product into different discs, one for each printer on the market, I can guarantee that it would be impossible to buy these, except perhaps for whichever printer was "flavour of the month. As otherwise, if all our 500 plus regular dealers were to stock both PCW9512 and PCW8000 variants of 505 printer drivers this would mean a stockholding of over half a million products!

Also, reducing the number of discs in the pack would make a minimal change to the price of the product. Indeed, if we were to 'unbundle' the upgrade supplied with the product this would probably increase the cost to most purchasers.

In fact the majority of the contribution to our income from the Printer Support Pack goes towards software development, not towards the cost of the discs. This enables us to keep up with new printers, for example, we support the very popular Canon BJ-10e - a point noted in your recent discussion on the use of printers. It also enables us to produce our comprehensive "External Printers Guide", now in its third revision in nine months just to keep up with the current printers on the market.

Mr Nichols comments on his experience with printer support. I note from our records that it was actually over a year ago when he wrote and that at that time we had not released the Printer Support Pack. So to use the present tense in his letter was possibly misleading. The

current Printer Support Pack includes what I believe to be correct support specifically for the LC10, with the exception of a few characters that are simply not supported by Locoscript. In particular, the © character is fully supported.

It is unfortunate that the printer driver has been further developed since Mr Nichols was given his copy, but it is not practical for us to keep all our customers informed of every change we make. For customers such as Mr Nichols who have bought an earlier product which is later superseded, we are always happy to provide an upgrade at a reduced price - for example to upgrade the Printer Support Pack of any of the earlier Printer Drivers Discs, simply return the old product with £14.95 + VAT (£17.57) and we'll replace it with a completer copy for the latest version.

And finally, Mr Millard is of course correct. We do take a commercial view with regard to our products - it is only by doing so that we can keep up to date!

**Howard Fisher**  
**Locomotive Software**

*8000 Plus: Thanks, Howard.*

## Economy drive?

With reference to the July listings - Starters Orders - Petrol. Bas program, could you please let me into the secret of the car that does 759.182 mpg! To check on this magic I typed the program and checked it with Check3.bas and it still came out the same. I note though that Martin Le Poidevin has fallen into the same trap that we are always exhorted against making, a figure 1 printed instead of a subscript L. This was not a difficult error to locate, in fact I discovered it before running the program, but what makes it so bad is that it was meant for beginners and it was printed after checking figures had been added.

I look forward to my copy of 8000 Plus hitting my doormat each month and

sometimes wish it came out fortnightly! Continuing success to your magazine - "The best about the best"

**Tony Breeding**  
**Weston-super-Mare**

*8000 Plus: Yes, we admit, we're guilty on all counts. Would that the super-economical car really did exist, but not even the 8000 Plus wagon can manage that kind of performance. The correction you seek is lurking on page 53 of this month's Listings, under the heading 'Error!' Apologies to all those first timers who have been frustrated by the mistake - I am assured that this month's Starters Orders runs like a dream.*

## Starry eyed

I've just read the July copy of 8000 Plus and in particular your feature on popular external printers. Your review of the Star LC10 mentioned the problems you had with some CP/M programs on the printer and I thought you might be interested to know why.

The escape sequence required on the PCW printer to get it to handle continuous paper is `esc$+"c"` and of course most of the PCW software invokes this call. Unfortunately Star, when they created the Epson emulation on the LC10, decided that as an extra to the standard coding it would add an option to set a form gap and they used the escape sequence `esc$+"c"+chr$(n)` where n is the gap size in lines.

In consequence PCW software using the standard codes is misinterpreted by the LC10.

I'm afraid because for this the LC10 is the worst printer you could have selected for anyone wanting to run CP/M programs on their machine, even though nearly every printer review I have ever read recommends it as the best replacement printer for the PCW series!

**Bill Weeks**  
**Cavalier Software**





**8000 Plus:** Thanks Bill – I'm sure that your information will be welcomed by CP/M-enthusiastic LC10 users everywhere!

## Slow coach

I have Electric Studio's Newsdesk DTP and find printing out on my 8256 built in printer excruciatingly slow. If I installed an internal 3.5" drive and then bought a better printer would this improve the speed of printing?  
**Aneurin Richards**  
**Newbridge**

**8000 Plus:** Installing a 3.5" drive will not make any difference to the speed at which you can output work from Newsdesk. However, buying a better printer could be the answer to your problems. The best thing to do is to check with Electric Studio (0462) 420222 and find out if they have a recommended external printer for use with Newsdesk. I must stress, however, that the company no longer produce that program, so cannot offer help on technical matters. The other course of action is to refer back to last month's 8000 Plus, where we looked at five of the most popular external printers on the market. We supplied information about speed in the feature.

## Office absence

As a very new Amstrad PCW8256 owner I was waiting with keen anticipation for your Issue 58 July '91 as I was especially interested in the forthcoming article on the use of the Mini Office spreadsheet announced in the June issue.

You can imagine my disappointment and puzzlement when, although Mini Office Special is listed on page 57, there is absolutely no trace of it in any part of my copy. Page 57 carries four adverts. What happened? Did someone press the wrong key losing it forever? Or can I refer you to an excellent Para entitled 'Recover from Limbo' on Page 22 of Issue 58!

Can we hope that this article will appear in some future Issue? May I also ask for more on Mini Office particularly the Database?

**Sue Jones**  
**Sudbury**

**8000 Plus:** This is something which crops up occasionally in magazine production, and, if it happens at a late stage, cannot be atoned for. The Mini Office feature had to be dropped two days before the magazine went to the printers – and that means a whole twenty days after the Opening Menu was sent off, so there was no way to warn readers! You will, however, find it nestling on page 42 of this issue – and it should be worth the wait!

## Enough's not enough

When I first bought a PCW8256, I discovered your magazine, and liked its informative, good humoured style. I took out a subscription.

Now I've moved to a PCW 9512, and I've let my subscription lapse, occasionally buying copies from the newsagent, just to see what's going on.

8000 Plus continues to be an excellently produced magazine, but the same flaw persists which caused me to drop my subscription: 90% of it is b\*\*\*\*\* LocoScript, innit? With my earlier PCW I quickly changed to using Protext, and found it brilliant for the type of work I was doing which is writing articles. I still use Protext with my PCW9512. Now here is July's edition of 8000 Plus and what do I find? Only two pages on Protext.

Perhaps you ought to produce a Protext Appendix, for about 20p, to save Protext users having to stagger through all those Locos in the main magazine.

Do you intend to offer Protext users a bit more value for their £1.95 in the near future? If not, is there any point in taking out a subscription?

Now here's a question for you. I'd like to change to a daisywheel that can produce accents as used in Dutch ('e' acute, grave, and umlaut); and also, preferably 'ij' as a single letter. I know there's a Netherlands version of the Thesis PS wheel. To save me spending about £15 on this only to be disappointed, do you happen to know if it does give all these accents?

**Christopher Goodall**  
**York**

**8000 Plus:** I understand your frustration, but have removed your expletives for the benefit of other readers! The subject of how much to include on a given program is an interesting one, and also one which can keep an Editor lying awake at night. For every one letter like this, I have ten others asking for more space on, say, Supercalc, Stop Press – in fact, any program which you care to mention. In addition, we send out reader survey cards with a list of programs, and a box to tick if you would like to see more or less on those programs. The mores usually equal the lesses, so from that I deduce that the balance is about right. LocoScript is by far and away the most popular word processing program for the PCW – and the most owned among our readership. We have done our best to cover Protext in a series which began last October, and we are following up that series with a Protext Surgery next month. If the queries keep coming in, then it will continue. Don't forget, also, that many of our features cover Protext in a more general way – (this and last month's cover features, for example). Of course, if demand is high, then the topic will be more heavily catered for – but you have to let me know! Now this

should cheer you up – the Dutch daisywheel that you seek has all that you require – I've just checked my own!

## Law unto himself?

It seems to me that Christopher Whitmey (July 91, page 88) is no lawyer. It is true that it is not the program, but the licence to use is legal property which you have bought with your money and it is yours to use, give to your niece (or aunt), bequeath, re-sell even in bulk both to individuals or to merchants, or, if you like, to throw in the fire. The sole condition is that only one copy may be made or retained at any given time.

This principle is the very core of free markets, but here are a few illustrative exceptions to it. Wimbledon tickets may not be used by a second party who legally purchased them from a tout. A British Rail return ticket may not be used by a different party for the return journey. In both of these cases incidentally not the seat but the use of the seat is purchased. These are clearly expressed conditions of sale.

It follows that unless writers of software clearly state before purchase that the software may not be disposed of in the normal ways it is clearly legal so to dispose of them.

Second point (same issue, page 86). The law on copyright is clear in principle, but less so in practice. See Amanda Michaels, 'British Copyright Law', Writers' and Artists' Yearbook 1991. The principle is that everyone has the exclusive right to the financial rewards for his labour. So it may not be reproduced in any way to his detriment without his express permission. But then, as Amanda points out, the law lists a whole lot of exceptions. I have not asked the permission of Ms Michaels, nor of the publisher, to quote her, nor is there any need to. Nor does the law take cognizance of trivia; 'De

minimus non curat lex'. If someone wishes to include a picture of an angel in the parish magazine, it is perfectly legal to scan the photo of the Editor of 8000 Plus (none better) and add wings. Neither the artist, not the subject, not the publisher are likely to object. Nor indeed are Amstrad likely to object if a photo of a PCW is scanned; quite the contrary.

There is also a saying that copying from one author is plagiarism but copying from many is research. In practice one can freely quote a paragraph from a book without asking permission, but it is usual to acknowledge the source. To scan some details of a photo or design requires no permission, especially if the details are not the salient ones. Nobody would object to scanning the hands on Mona Lisa.

The question the scanner must ask is whether the publication is likely to be to the serious financial detriment of the owner of the copyright, for that was the point both in the 1956 and 1988 Copyright Acts.



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Interesting point about the wedding photos, but I suspect that almost certainly there is a time limit.

**Des Keenan**  
**Wembley Park**

**8000 Plus:** Thanks, Des, I've always liked you...

## Egg on your face

As you say, Protex's spell check will indeed tell you that "The yolk of an egg is wite" is wrong, but that not that "The yolk of an egg are white" is also wrong; and, being colour blind, neither will tell you that "The yolk of an egg is white" is wrong too.

**Duncan Bryson**  
**Irvine**

**8000 Plus:** Does that mean that the yoke's not on you, then Dunc?

## Can you help?

I am writing to see if you can help locate a computer game I have been trying to obtain. The game is called SOKO-BAN produced by a company called SPECTRUM HOLOBYTE (A division of Sphere Inc.). These details were taken from the opening screen of the game.

I have tried all the usual retail outlets, without success. All the retail outlets have said the same thing. "No trace of this game title can be found in the listings we have." If you cannot help, would it be possible for you to supply the address of SPECTRUM HOLOBYTE so that I could contact them direct.

**David Healey**  
**Warrington**

**8000 Plus:** Can anyone out there help?

## Brain power

I thought I'd drop a quick line to commend Brainstorm Software on their excellent after sales service.

About eighteen months ago I purchased the Brainstorm ideas organiser. As promised it proved to be invaluable when writing reports or structuring my forays into more creative writing.

That was until the dreaded moment... What ever's this? A fault?!

I tried everything: copying master discs, checking printers, trying the software on other 9512s. All to no avail. So I wrote off to Brainstorm, somewhat half heartedly it has to be said as my disc was at least eighteen months old and well out of guarantee.

What happens? I get a phone call from Mr Brainstorm himself, David Tubitt, he sits me down at my 9512 and talks me through all the screens and keystrokes. It was all a bit like a scene from one of those disaster movies; you

know the sort of thing, partially sighted nun lands 747 with a little help from God and a lot from our tight lipped hero in the control tower. How embarrassing, it didn't crash! Nothing wrong with the software at all.

Indeed it transpired that my apparent knowledge of the programme had developed into contempt. My 'fault', was indeed my fault! Pilot error you might say; must have been a Brainstorm.

Thanks again to David Tubitt for taking the time to talk me down safely.

**Simon Little**  
**Dundee**

**8000 Plus:** I'm pleased to hear it; I've published this letter because I've been receiving so many others which tell of the opposite experience. Now I'm not suggesting that everyone should expect the kind of service which you received, and I'm sure that Brainstorm haven't got the time to offer it to every caller, but it's good to hear nonetheless.

*Congratulations on a pleasant flight!*

## What's the score?

As a relative novice to the PCW I have couple of queries with which you could perhaps help me.

I have a PCW 9512, to which I propose to fit a second disc drive and I have in mind to fit a 3.5" unit. I was under the impression that to export a text file for use on another machine all that was necessary was to convert it to ASCII and that then, provided the disc could be used on the other machine, it could be imported.

From the comments on p45 (June issue) I gather that this is not the case and that Moonstone's PCW 2 in 1 or a similar utility is necessary.

If this is so what is the point of having the ASCII facility? Is it that this is only for communication between micros running under the same system - in this case CP/M?

In reply to W. Forsyth on p86 of the June issue you infer that a 3.5" drive cannot be used for 'booting up'. If the 3.5" drive is compatible why not?

Silicon City say in their advertisements that a PCW with 3.5" drives is on the way. So you can 'boot up' with a 3.5" drive! Can't you?

**W. Taylor**  
**Glossop**

**8000 Plus:** Point 1: ASCII makes a file exportable, but not necessarily legible - and when the disc sizes (and therefore, formats) are different, then you do need a utility such as 2-in-1 to enable you to read your documents at the destination machine. ASCII can be used, say, to make a document written in LocoScript legible in Protex, but as soon as you are transferring to 3.5" or 5.25" format, you'll need a utility to help you.

Point 2: This all goes back to the format and differing operating systems referred to above. The PCW is a CP/M machine,

the PC an MS/DOS machine. It's like trying to put diesel into a petrol engine at the moment, but, if the rumoured 'new' PCW has a twin or single 3.5" drive, and still runs from CP/M, then you can be sure that it will bootable from its new sized drive.

## Large as life...

You have made the most blatant understatement of the year with this most undistinguished footnote.

I have obtained the LocoLarge program disc and I can only say that this is quite the finest add-on for LocoScript since LocoSpell and it deserves very much more than just a passing mention in a footnote.

You should give this disc a full review in place of some of the trash you do review so enthusiastically.

**F.A.Gardner**  
**Dublin**

**8000 Plus:** I'm pleased to hear about your newly-discovered friendship with large text - but I really can't raise the same sort of enthusiasm for your opinion of the products we review. Surely a case of each to his own, F.A?

## Open and shut case

What you do not mention in your excellent feature in fitting the 3.5" internal drive is that opening up the PCW invalidates the guarantee, so that it is not really advisable for any computer less than a year old.

What you also mention is that having two drives halves the wear on each of them, an important additional factor when you consider that as time goes on 3" units will become ever more expensive and may become unobtainable long before the computer as a whole wears out.

I would agree that installing the drive is easy for anyone with mechanical aptitude. However I know PCW users who would not trust themselves to undertake any such modification. A number of them were very pleased to pay me £35 on top of the cost of the drive for doing the work for them. And I would be pleased to do so for anyone else similarly reluctant to do it themselves.

**Paul Eisler**  
**London**

**8000 Plus:** Yes, you have a point about the guarantee, although more and more people these days are taking out a repair contract which applies from day one of ownership. However, it is wrong to assume that everyone does this, and it is also wrong to assume that everyone knows about the terms of the guarantee. As to your offer to install drives, if anyone is interested, they can write to you at our office in Bath, and I will pass the correspondence on.



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# Competition

*Answer the four 8256-related questions below, and you could be in with a chance of winning a fabulous PCW performance booster!*



## SCA Systems' Pro8256 simply clips on to the back of the PCW

The PCW8256 enjoys the somewhat ironic status of being both the eldest and the baby of Amstrad's family of word processors. Launched almost six years ago, the machine has never ceased to attract new owners, but it remains the least powerful of the three PCW models.

This, however, has never seriously impeded its ability to sell – and sell in its droves. Just recently, Amstrad report that sales of the 8256 have been soaring – thanks, in part, to a reduced price.

It is perhaps this price drop which has spurred SCA Systems on to produce their latest hardware add-on, Pro8256. Throughout the lifetime of the PCW, SCA have established themselves beyond doubt as the producers of good quality products, at very realistic prices. The SCA Rampac has become a generic term for PCW memory add-ons, and the launch of their Vortex hard disc last year, hailed by us as, 'The hard disc for the rest of us', has brought a new lease of life to many a PCW – at an affordable price.

Pro8256 proves once again that pragmatism is a quality to be admired. Pro8256 employs this strategy in two areas. The first – and most important – is the question of memory. Many of you have been frustrated by the inhibiting nature of the 8256 native memory. Far be it from us to

suggest that extra memory is the answer to all your PCW-ing problems; that simply isn't the case. However, what it does offer the user is a smoother course through day to day operations on your PCW. The classic, oft-cited example is that of LocoSpell. The program is all too often regarded as inferior because of its speed. And as far as most people are concerned, this is a case of guilty until proven innocent. The fact remains that it is the program combined with the native power of the PCW which makes for sluggishness in performance.

A product such as Pro8256 could address and disprove such an accusation. For Pro8256, once installed, adds 256k of memory to your machine instantly. Gone will be the

obligatory coffee-making interlude while LocoSpell trudges through your document; gone will be the modified page sizes in Micro Design, and the adamant refusal to accommodate Flipper. Extra memory will, at the very least, increase the operational effectiveness of your PCW.

But far be it for SCA to limit the value of their product to this one benefit. Pro8256 also offers you the chance to make your machine more flexible. The clip-on pack provides you with both a serial and parallel port for your PCW. Might sound a little uninspiring, but what it does mean is that if you want to add extras – such as a modem or an external printer – then you do not have to spend extra cash on an interface to connect such add-ons to the PCW. This is a thoughtful addition, and one which will come in very handy as your repertoire of PCW-ing skills expands. For the owner of the PCW8256, SCA's product is an imperative buy.

But we do realise that budget is a restraining factor to many PCW owners. So, we're giving you the chance to win Pro8256 in this month's competition.

As usual, the difficulty of the questions is not going to prevent you from being in with a chance to win the competition. We want everyone to be able to qualify for the prize, so we've kept things simple. So, take a look at the questions, jot the answers down on a postcard and send them to: 8000 Plus, Pro8256 Competition, 29 Monmouth Street, Bath BA1 2AP. Entries to arrive no later than 25th August. Good luck!

1) Why is the PCW8256 so named?

- a) Because 256 was its secret code number when it was being developed
- b) Because Alan Sugar was born on 8/2/56
- c) Because it has 256k of memory

2) Which of the two other PCWs in the family was the next to be launched after the 8256?

- a) PCW9512
- b) PCW8512

3) By which girl's name was the PCW8256 known prior to its launch?

- a) Veronica
- b) Ethel
- c) Joyce

4) Which of these is also a product made by SCA Systems?

- a) The Rampac
- b) Sprinter
- c) Flipper

## Next month!

### Fresh connection

The last three issues of 8000 Plus have covered, in some detail, the installation of a 3.5" drive to the three machines in the PCW range of computers. The main reason for such an operation is to give your PCW something concrete in common with its elder cousin, the PC. A physical similarity (in the shape of the same sized drive) is all very well; but what about the means of communication? Next month, we'll be looking at a brand new file transfer utility from the ever productive SCA Systems. The product is, rather invitingly, called WYSIWYG – or, to those in the know, What You See Is What You Get. We'll be setting out to validate that claim in next month's issue. Don't miss it!

### Wait for it...

Now we're well aware that this column has been accused of bare-faced fibbing in the past. Here we sit, just weeks away from publication, promising you in-depth coverage of a brand new product. Then, lo and behold, it fails to materialise at the predicted time. We're risking it again this month, with news of a rather important release from DTP specialists, Creative Technology. The company are currently nearing completion of an impressive hardware add-on for the PCW. If you read last month's news pages, there is more than a passing clue as to its identity, and if you didn't, we can divulge one giveaway snippet of information: it squeaks. See you next month!

### Then we were five...

September's 8000 Plus marks our fifth birthday, and we're in the mood for a celebration. Instead of receiving presents, we're going to be giving them away. So, if you want to join in the fun, be sure to tune in to next month's issue

### The September issue of

# 8000 PLUS

is on sale from 25th August  
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LIFETIMES: Multistrike Films	100K chars
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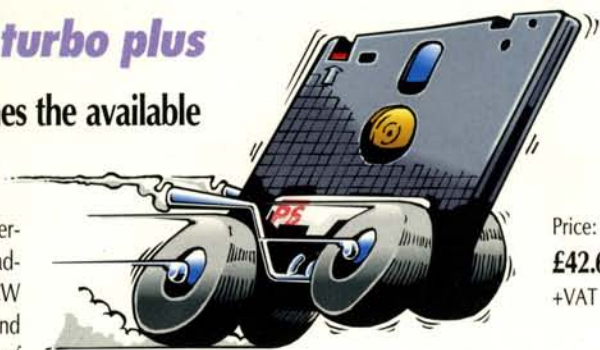
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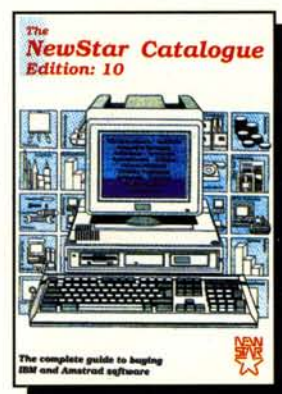
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